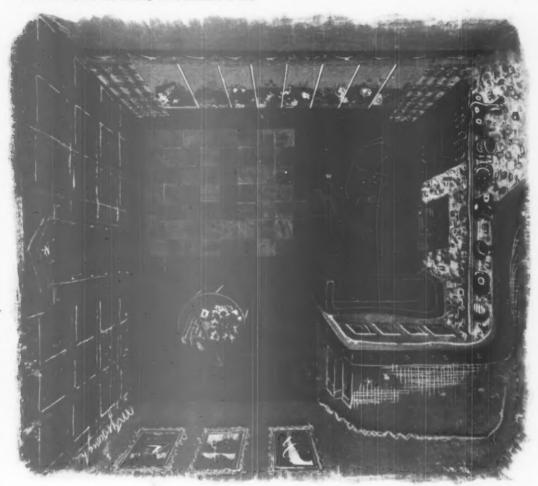
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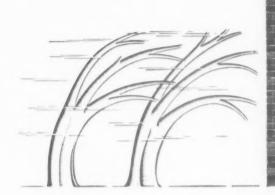
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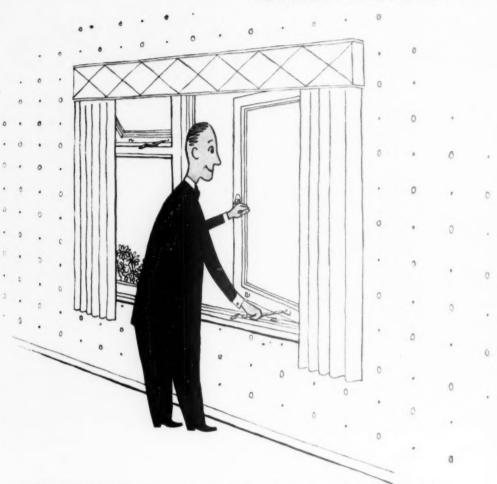


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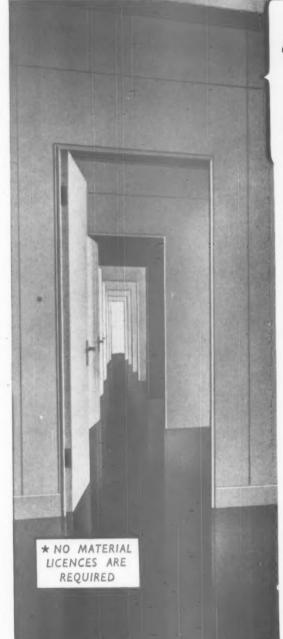
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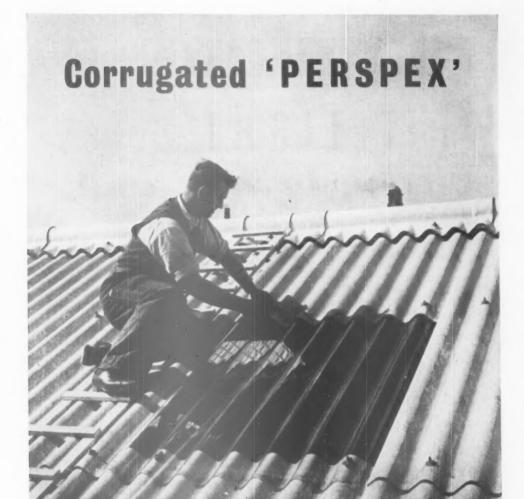
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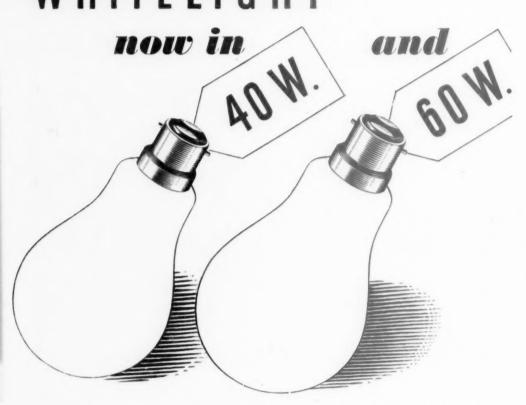
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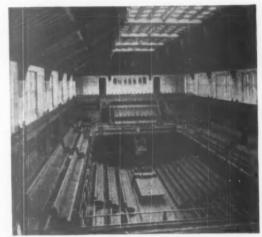
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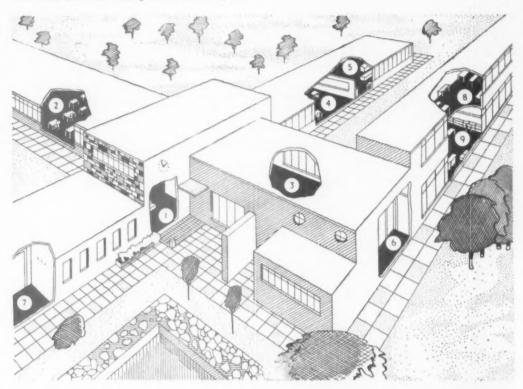
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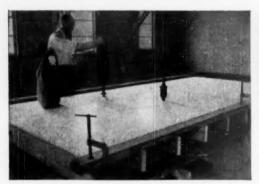


Fig. 1. - Rig and Gear for applying impact tests.



Fig. 2. - Rig for static loading tests. (Floor section is inverted, with captive airbag beneath for loading.)

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THE FUTURE OF PRIVATE PRACTICE

A LTHOUGH so many of the younger generation of architects seem to be entering public services, the recently published Report of the Committee set up by the R.I.B.A. in 1948 stresses the fact that, so far as their evidence went, there is no fear that the continued existence of private practice is threatened. "The frustration of the many and the underemployment of the few are indeed heavy hindrances to happiness and prosperity of the profession" but the effects of war "have not been so damaging to the profession as might have been expected." So the R.I.B.A. Committee has strong faith in private practice and belief that "private and official architects are complementary and of one purpose architecturally."

All members of the R.I.B.A. will, by this time, have received a copy of the Report and, we hope, will have read it. Even so we may, perhaps, be allowed the latitude of some random thoughts and comments on the subjects investigated. We understand, however, that a sub-committee has been appointed to see how the definitive recommendations of the Report can be implemented. It may well be that this sub-committee will have to continue to some extent the investigations of the original committee for there are certain gaps in the story which must be filled in it the Institute is to ensure that it can "balance" up the work and position of the profession in all its parts.

For instance, that phrase, quoted above, "of one purpose architecturally" implies that the profession (and the R.I.B.A.) knows with some unanimity what architecture really means and is, in these transitional days. The fact that patronage for important schemes involving architectural expression has changed from private persons to public or other organized bodies surely means a fundamental change of outlook on the meaning and quality of architecture as an expression of the times. One point which we feel has not received sufficient attention is that work done for a public authority is in the hands of an elected committee or council—even the work of the authorities' salaried architect is so controlled—and although the Report stresses collaboration between public and private architects in their architectural purposes, the real point of contact for success lies through committees or councils, and these are, in some cases, swayed by local biases (or more disastrously by party politics) and not by a love of beauty or efficiency in architecture.

Incidentally, also, most committees and councils of local authorities are ephemeral bodies who may change, perhaps several times, during the course of designing and carrying out of a scheme in which the "outside" and the "inside" architects are trying to achieve collaborative architecture; what, under these varying circumstances, happens to "architectural purpose" and, in spite of it all, will some sort of architectural expression of modern life arise? Changes of "patronage" and responsibility for the money-bags can have wide-reaching effects on architecture itself—however it is defined or whatever it is held to mean.

Another gap in the Report is concerned with the question of salaries and profits in the profession; we cannot help feeling that the terms of reference cover a consideration or, at least, a review of this important matter. How many professional people get salaries of, say, £2, 3, 4, or 500 or more a year? Or what are

the average profits of a private practitioner? Or, indeed, the overheads of public departments? These points were not covered, admittedly, in the original questionnaire sent out to members; but they should be included, as having some bearing on the investigation, or should be considered as evidence gleaned in some other way. After all, it is, basically (and this is not meant cynically) the incomes of the profession that keep it alive, like most other human activities at the present time.

There is another point, under much the same heading, to which some further attention might be given; it has been said (and rather loudly in some quarters) that the public offices are getting more assistants (if not always the pick) because the private offices cannot afford to go on increasing their staffs at the present rate of salaries and that, even if nominal salaries in both places are equal, the tenure of employment is more secure in the public office and there are often pensions or other long-term advantages at the end of the road. The amount of a private architect's practice may vary from year to year much more than does the work in a public office. What real effect do these considerations have, and are they so or not?

Some of these latter questions could be answered by a slight change or extension of the kind of evidence called; for example, in the present Report we find no sign of any contribution from the Association of Building Technicians. This body includes a lot of architectural assistants, protects their interests, and is represented on the R.I.B.A. and A.R.C.U.K. Councils and, therefore, has some experience in such matters.

Although such comments can be made, they are made to help what is a very useful piece of work. The R.I.B.A. Report is the first of its kind and it is a document that should be a very helpful background for further investigations of facts and for the implementation of recommendations. The problems with which it is concerned are admittedly very complex and the result so far achieved is gratifying, coming, as it does, unanimously from a committee composed equally of "private" and "public" architects and supported in evidence by some 70 per cent. of the R.I.B.A. membership.

EVENTS COMMENTS

THE INTERNATIONAL OUTLOOK

THIS has nothing to do with the cold war. In my pathetic efforts to get away from describing the doings of architectural London in general and of the A.A. in particular I occasionally put in French tags and other foreign words. The foreign words are to impress you with my international outlook. The French tags which are, of course, also foreign are carefully chosen with suitable accents to exercise the keys on my typewriter. Unless these keys are used from time to time they become gummed up. I find them fascinating because when they are depressed the carriage does not move on. One must type the accent before the letter and I find that this severely taxes my ingenuity. The point of all this is that you are never allowed to share in this fun because the printer has not got the international outlook, nor has he a typewriter or linotype, or whatever he uses for arranging the letters, which does accents. It may be that his machine has the keys but they are gummed up because most of the contributors to A. & B.N. have not got the international outlook, either. Whatever the reason, the loss is yours and I apologise.

CANADIAN VERMICULITE

OWNERS of vermiculite mines in various parts of the world will be sorry to hear that considerable deposits of this material have recently been discovered in Canada. At this rate we may soon have too much of this admirable building material. Alternative uses will have to be found. I have always thought that if only it could be dropped down the shot tower and flavoured with pumice it would make an excellent breakfast food, or as excellent a one as some already on the market.

IT really is rather odd that the popular conception of productivity in the Building Industry should be measured in terms of the number of bricks laid by bricklayers in a specified time. A correspondent in

the Daily Telegraph points out that no one ever questions the number of joints wiped by a plumber in a day. Why pick on the bricklayer? Quite apart from other considerations the number of bricks laid will vary with the number of labours to be performed and compared with a power station there are plenty in a small house. All the same I dare say that some bricklayers could improve their output if they chose.

THE PRESERVATION OF ARCHITECTURAL "GEMS"

CCARCELY a day passes without the appearance In the press of an appeal to save some or other building. A proportion of these buildings are well known and a national responsibility. Many however are not. Assuming that one has money to subscribe to such things how is one to decide whether the cause is worthy? No doubt in some cases the Royal Fine Art Commission or the S.P.A.B. is consulted, but local sentiment is inclined to value old buildings at more than their worth. Appeals for Charitable Organisations are carefully controlled to avoid fraud. Without suggesting that there is ever anything fraudulent about appeals to preserve buildings would it not be a sensible plan for all appeals to be vetted by a central authority? What authority?

NORTHERN POLY

THE Society of Architectural Students, Northern Polytechnic, London, pour la 222 Polytechnic, London, now has 230 members and has arranged many activities during the past year. Hugh Casson is speaking to the Society today and this is rightly considered to be a major event for the Society. How Mr. Casson manages to give all these lectures, direct the Festival Architecture and carry on a thriving practice only he and his architect wife know.

STRABISMAL OFFERINGS

. B. MORTON'S letter to The Times offering eccentricities for exhibition on the South Bank was a masterpiece which only Beachcomber could have devised. If you missed it, it would be worth your while to go to the public library and look it up. It appeared on November 21. However I still think that Michael Pattrick's porage pump, and steam telephone, both as yet unpatented, should be shown. The designer is shy and so far I have been unable to persuade him to send in the drawings.

CHRISTMAS LECTURES FOR BOYS

If you have sons, more particularly sons between thirteen and seventeen, who are searchers after information and too grand to go to a pantomime, you may be interested in three lectures on Railways to be given at the Institution of Civil Engineers on December 29 and January 1 and 3, at 3 p.m. Tickets, which are free, may be obtained from the Secretary. For your information there is no lecture on being an engine driver, although one of the lectures is entitled "One hundred miles an hour by train."

PRIVATE ARCHITECTURAL PRACTICE

EMBERS and students of the R.I.B.A. will have received a copy of the "Report of the Committee To Consider the Present and Future of Private Architectural Practice." Many will already have read it, many more will have put it on the pile of paper to be read to-morrow. It is an interesting document, bulging with facts. For example, 70 per cent. of the forms sent out were returned completed. There are between ten and eleven thousand students preparing themselves to be architects (this includes everyone from those in recognised schools to the followers of "let me be your father".) When the report was drafted, some time early this year, there were ten vacancies for every applicant for a job in a private office. I understand that this has now declined to about seven. Distribution of work among private architects is very uneven; in one area where work to the value of £1,331,800 represents 22 commissions, £1,311,010 worth is being done in one office, and so on.

The committee thinks that private architects have no cause for grievance except for the uneven distribution of work and the general frustration of practice to-day. The report gives no very positive answer to the first of these problems but recommends, among other things, (a) more competitions, (b) the joint commissioning of one older and one younger firms to carry out projects, (c) profit sharing and bonus schemes, (d) "group" systems for young architects, and (e) the development of the system by which architects in public service employ private architects to carry out part of their building programmes.

There are a number of points in the Report which will provoke some argument, for example it says in para. 40 on the subject of large offices, "It is worth noting that it is the large office system which accounts for the high status of the architect in professional and commercial circles in the United States, and for the fact that his position as the co-ordinator of complete building schemes is generally recognised over there. It would be valuable if the prestige of the architect could be enhanced in this country by a similar acknowledgement of his proper functions." Surely a large office does not make an efficient architect and mere size is unlikely to impress either American or British business men.

No less than 81 per cent. of the Students who an-

swered the question voted for private practice. This is thought to indicate that they would prefer it as principals (a flaw in the questionnaire here, perhaps). On young architects setting up in private practiceand here it is interesting to note that by young architect the Committee means those who have had at least five years in an office-the report considers that though things are harder than they were in the days when the family could nearly always be relied on to provide the first client or so, those in other professions are just as hard hit. This seems to me to be untrue. There are as far as I know no restrictions on being ill or having teeth out or going to law. The report stresses the enormous opportunities offered to young architects by the competition system; this argument might be more powerful if there were more competitions to enter for.

The Committee has done its job well but I notice that although the Council quite clearly gave instructions for it to produce its report in six months it makes no reference to the fact that it actually took twenty.

CHILDREN'S BOOKS FOR CHRISTMAS

In these days of expensive books I sometimes feel that I am not getting my money's worth. It is refreshing therefore to come across some books which are good value. First, "Wild Life Illustrated," 500 pages and 300 photographs of animals, with articles by some of the best known people on the subject, price 10s. 6d. Then, the "Wonderful Story of the Sea" nearly 400 pages of text and pictures, price 12s. 6d.; both these books bulge with the sort of information which is the breath of life to boys. The production is not in the highest class but then look at the price.

For entertainment of younger readers there is the "Children's Own Wonder Book, with stories by some well known children's writers, information on how to make things, games, and lots of pictures, some of which are by such people as Nicholas Bentley and Stephen Spurrier. All this for six shillings. The "Adventure Omnibus" by Eric Leyland contains three books in one volume, the first about forgers in Bayswater, the second about Cowboys and the Pony Express, and the third about a search for pirate treasure in Cornwall. This one is also six shillings for the three stories.

These books are published by Odhams Press, none of them is in the least bit intellectual or particularly striking in appearance but children will like them and they are excellent value.

If your child is only interested in Architecture I believe that a new edition of Banister Fletcher has recently appeared.

GAS AT THE BUILDING CENTRE

WHATEVER its architecture the gas industry is a lively affair. Last week the Gas Council held a press show of their new display at the Building Centre, which includes a number of the latest appliances, most of which are well designed, although the tops of domestic cookers still seem to me to be unnecessarily complicated and difficult to clean. It is not often that one comes across a bit of gas appliance design which shocks but there is in this show a portable convector which closely resembles a gilded giant microphone.

NEWS OF THE WEEK

Symposium on Hospital Planning

A Post-Graduate Symposium on Hospital Planning is being held at the Architectural Association on December 6. Speakers will include Mr. S. E. T. Cusdin, O.B.E., A.R.I.B.A., President of the A.A., who will be the Chairman; Mr. Michael Powers, A.A.DIP., on "Planning for Internal Circulation and Future Development of Treatment Methods"; Mr. Rees Phillips, F.R.I.B.A., on "The Economic Size of the Ward Unit"; Mr. Geoffrey Fairweather, A.R.I.B.A., on "The Nursing Unit"; Mr. Lionel Pearson, F.R.I.B.A., on "Operation Section"; Mr. John Madge, A.R.I.B.A., on "Research on Hospital Planning"; Mr. A. S. Gray, F.R.I.B.A., on "The Out-Patient Consultation Department of the Acute General Hospital"; Mr. S. F. Amis on "Structure for Flexible Planning and Services"; Mr. L. A. Wills, A.R.I.B.A., on "The Functional Relationship of the Various Departments of a Hospital"; Mr. H. H. Clarke, F.R.I.B.A., on "The Problem of Improving and Extending Existing Hospitals" and Prof. H. W. R. Vines, M.D., on "Doctor and Architect."

Exhibition of Rubens Panels

Panels from the ceiling painted by Rubens in 1634 for the Banqueting House in Whitehall (now the Royal United Services Museum) have been cleaned and restored by the Ministry of Works and will be on show to the public at the Orangery, Kensington Palace, from Tuesday, December 12-16 inclusive. Hours of opening will be 10 a.m. to 4 p.m. Admission will be

During the war the panels were removed from the Royal United Services Museum to a place of safety. After the war the opportunity was taken to clean and restore them by the latest scientific methods. The panels, the largest of which is 32 ft. by 20 ft., were painted for Charles 1. Their main subject is the Apotheosis of James 1.

Claims on the £300 M.

The Central Land Board's contribution towards professional fees incurred in making a claim under the Town and Country Planning Act, 1947, will be sent to the claimant "care of" the agent whose name and address was given in answer to Question 2 of the claim form S.1.

As stated in the Board's announcement of October 11, 1950, the contribution is payable as soon as possible after the determination has become final, provided the conditions set out in paragraph 16 of the Board's pamphlet S.1.A are satisfied.

The Minister of Town and Country Planning has appointed Mr. H. W. Wells, F.S.I., F.A.I., to be Chairman of the Hemel Hempstead Development Cor-

poration in place of Lord Reith who has resigned from the chairmanship.

Mr. Wells has been a member of the Hemel Hempstead Development Corporation since its inception in 1947.

OBITUARY

The death occurred on November 26, of W. Percy Marr, A.R.I.B.A., of Breage, aged 74.

IN PARLIAMENT

New Colonial Office Site

THE new prospect of Westminster opened by the clearance of the old Westminster Hospital site has brought about a revival of suggestions that the proposal to build a new Colonial Office there should be reviewed, and even rescinded. The subject was ventilated in the House of Lords on November 21, at the instance of Lord Mancroft.

Lord Morrison, Parliamentary Secretary to the Ministry of Works, recalled that the decision was first announced in October, 1946, and the following year a Bill was passed through Parliament. There was a subsequent review of the whole project by the Ministry in conjunction with the Royal Fine Art Commission, the Ministry of Town and Country Planning, and the Treasury. The elevation was redesigned, and the resultant compromise—accepted as such by the Commission—was admitted to be within the limits of density of development proposed for the area.

This envisaged the surrender of more than one-third of this most valuable site for amenity purposes, at a cost (for the area to be surrendered) of approximately £150,000. This would greatly improve the amenities of the area and the prospect of the Abbey and other surrounding buildings.

The new building had been designed an eminent private architect. addition to the very considerable cost of the site, large expenditure had been incurred in connection with the preparation of plans. Contracts for the preliminary foundation work should soon be placed, and demolition of the old Stationery Office had already begun. The present position was that, in accordance with the decision taken in 1946, and the provisions of the 1947 Act, a new Colonial Office was to be built on a combined site in the Stationery Office and Westminster Hospital. The new office was urgently needed. The extension of the area of Parliament Square had been made possible by the purchase of land on the west side to which the Government had contributed £130,000.

Mrs. Elizabeth Braddock asked the Minister of Works if he would make available to local authorities information of the licences granted to build, other than for houses, in the area controlled his the best authorities (New 20).

trolled by the local authority. (Nov. 20.)

Mr. Stokes informed her that this was already done. In addition local authorities were normally consulted in advance about proposals for the provision of local amenities such as entertainments or social facilities and often about important shops. The programme of work in each area was arranged as far as possible so as not to interfere with

the new housing programme of the local authority.

Lieutenant-Colonel Lipton asked the Minister of Works whether, in view of increased building needs for Government purposes, he would reconsider the decision to disband the Mobile Labour Force.

Mr. Stokes stated that he had no reason to think that the increased building needs for Government purposes would be such as to justify him in varying the decision on the future of the Mobile Labour Force (Nov. 20).

Mobile Labour Force. (Nov. 20.)

Mr. J. E. Powell asked the President of the Board of Trade whether he would consider lifting the import duty off Swedish timber houses for as long as the present housing shortage continued.

Mr. Harold Wilson replied that he was prepared to consider on its merits any application which might be made for the abolition, on a temporary basis, of the import duty on timber houses. It would of course be necessary in considering such an application to have regard to the interests of the United Kingdom joinery industry and also to assess the effects of such action on our timber supplies. (Nov. 23.)

COMING EVENTS

Chadwick Public Lectures

 December 5, at 2.30 p.m. At the Royal Society of Tropical Medicine and Hygiene, 26 Portland Place, W.I. Bossom Gift Lecture: "The Modern House in 1850 and 1950—a Parallel and a Contrast." Speaker: Ronald Bradbury.

Institution of Sanitary Engineers.

December 5, at 6.30 p.m. At Caxton Hall, Westminster, S.W.1. "Problems of Underground Water-flow."

Speaker: H. L. Hawkins,

T. & C.P.A.
 December 6, at 1.15 p.m. "Planning of Rural Land—The present Position." Speaker: Dudley Stamp.

 December 7, at 6.15 p.m. Students' Planning Group. "Architectural Control and Criticism." Speaker: J. M. Richards.

Institution of Heating and Ventilating
Engineers

December 6, at 6.30 p.m. At School of Technology, Leicester. "Aspects and Developments in School Heating." Speakers: C. A. Reynard and E. Goring.

 December 7, at 6 p.m. At Caxton Hall, Westminster, S.W.I. "Planning and Engineering." Speaker: J. W. Henderson.

Royal Sanitary Institute

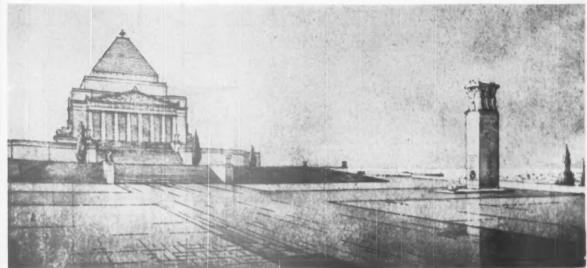
 December 8, at 10.0 a.m. At Newe Hall, Pilgrim Street, Newcastle-upon-Tyne. "A Home of One's Own." Speaker: J. V. Walker. "Drains and Sewers—The Legal Aspect." Speaker: L. Mair. Visits to Flour Mills, Factories, etc.
 On The Air

On the Air

December 8, at 8.40 p.m. Third
Programme. "London Housing—
Pimlico Scheme." Speaker: Peter
Shepheard.

EXHIBITION

Modern Building Exhibition, December 5 at 1,30 p.m.-8.30 p.m. and December 6-13 at 10,30 a.m.-8.30 p.m. At the School of Building, Lime Grove, Shepherd's Bush.

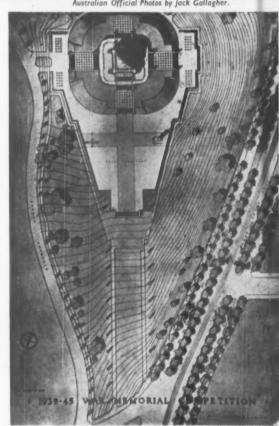


Australian Official Photos by Jack Gallagher.

As announced in last week's issue, the Competition for a Memorial commemorating the servicemen of World War II to form an extension to the Shrine of Remembrance at Melbourne, the World War I memorial, has been won by Mr. Ernest E. Milston, A.R.A.I.A. The winning design shows a great forecourt at the Northern approach to the existing shrine, the cross being in dark paving with a light stone surround. At the extreme end of the west arm of this cross is a 55 foot high granite pedestal culminating in a recumbent figure supported by figures representing the three services. It is expected that H.M. The King when he visits Australia in 1952 will dedicate the memorial, construction of which will begin shortly. The cost is estimated at £A120,000.



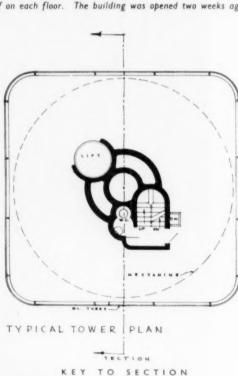
WORLD MEMORIAL, WINNING DESIGN 11 MELBOURNE.



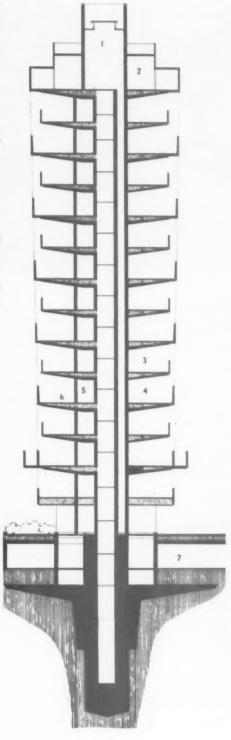
LABORATORY TOWER FOR S. C. JOHNSON & COMPANY

Architect: LLOYD WRIGHT

The new research laboratory is an extension of the original administration building seen in the foreground of the photograph, and is connected to it by a tunnel. The tower is 156 feet high of 14 storeys above ground level and is of earthquake proof construction designed to admit the maximum light. The structure is rather like a tree with a central ventilation shaft going down 54 feet into the ground forming a trunk with roots. The floors are cantilevered from this central trunk in the manner of branches. The exterior walls are bands of red brick and from alternate levels a curtain wall of glass rods hangs down, lined with plate glass internally. The total length of these rods is said to be 21 miles. Each storey projects enough to help keep the glass below it clean. All service ducts are vertical with relatively short runs off on each floor. The building was opened two weeks ago.



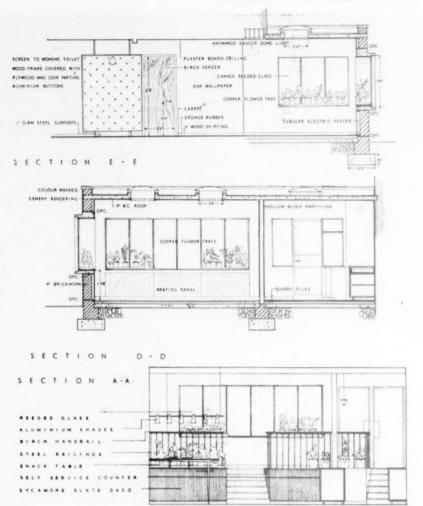
- I. AIR EXHAUST.
- 2. AIR CONDITIONING.
- 3. MEZZANINE.
- 4. LABORATORY.
- 5. TOILET.
- 6. PIPE SPACE.
- 7. TUNNEL.





LABORATORY TOWER FOR S. C. JOHNSON & COMPANY,
RACINE, WISCONSIN. ARCHITECT: FRANK LLOYD WRIGHT

"Up in the air is the natural place for a laboratory... Our industrial system has believed so much in science and so little in art that it has produced chiefly weeds. But now I see a flower among those weeds." F. L. W.

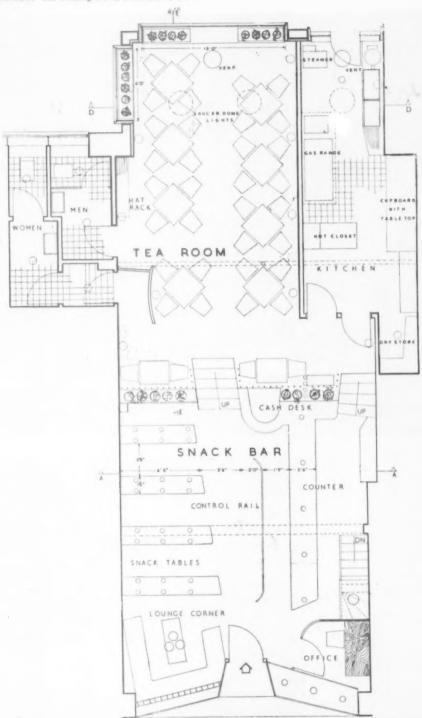


THIS snack bar and cafe, opened in September 1950 in the business centre of Edinburgh, accommodates roughly eighty people, and was converted from a former shop. Clever layout

accommodates roughly eighty people, and was converted from a former shop. Clever layout and a fascinating colour scheme, set off by light woods, combine to give an effect of spaciousness to the rather confined premises. The window adjoining the entrance door, with its brightly coloured flower boxes, sets the key to the gay, yet delicate interior. Near the entrance, and overlooked by the manageress's office, is the self-service counter, leading to four high snack tables at which coffee and light meals are consumed standing up. A number of steps lead to the slightly raised rear part of the premises, where there are tables with seating accommodation for thirty people and waitress service. This is lit by two large windows with reeded glazing and by two "Haywards" saucer dome lights, also giving permanent ventilation. A lightly curved screen, concealing the entrance to the clook room is framed in wood and covered in coir matting. The light from an inverted bracket enhances the decorative value of the rough surface and the shiny aluminium buttons.

Main Contractors, Messrs, Watherston.
Shop fitters, Messrs, R. L. Rae.
Light fittings and copper flower trays executed by Messrs. Bell Donaldson. Wall papers by Sanderson.
Carpet especially made by Messrs. Stoddart, of Eldersley.
Flowers by Porton Properties.

Snack Bar and Café for Messrs. Crawford, Edinburgh



Architects: BASIL SPENCE, O.B.E., F.R.I.B.A. AND PARTNERS



The lounge corner near the entrance, and the window to the street. In the foreground one of the snack tables, which are covered with formica linette tops; and finished with hardwood nosings. The light fittings over the snack tables and those over the counter and the wall brackets are designed by Basil Spence, and are of red painted aluminium.

Café for Messrs. Crawford Edinburgh

A corner of the restaurant. The floor here is covered with a specially woven carpet, slate grey with white stripes, and the pattern of white spots on a donkey brown background of the wallpaper is repeated in the heating panel under the window. Flower wall bracket of copper made to the architect's design.

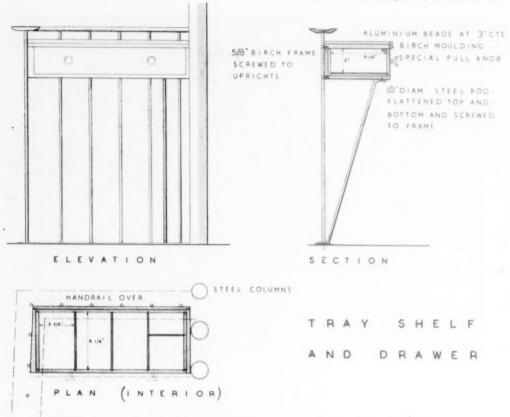




The snack counter, of sycamore slats and with a polished formica linette top. The control railing is of $\frac{1}{2}$ in. diam. metal tubes, painted white, with birch handrails. The wall behind the counter is painted lime yellow, and the doors to the kitchen are red, with white woodwork. The royal blue menu board has a magnetic background which supports the white lettering in any position. The four white columns at the end of the counter are of 3 in. diam. solid steel.

Looking from the snack bar to the raised section of the restaurant, towards the back wall. The screen of coir matting decoratively conceals the entrance to the cloak rooms. The dining chairs are of Danish origin.





Snack Bar and Cafe for Messrs. Crawford, Edinburgh. Detail by Basil Spence, O.B.E., F.R.I.B.A. and Partners

BUILDING

TEACHERS'

THE Building Teachers' Conference met at the Northern Polytechnic on Saturday, November 25. Owing to the recent death of the President, the late F. E. Drury, Esq., O.B.E., M.SC., the chair was taken by the Vice-President, T. E. Scott, Esq., C.B.E., F.R.I.B.A.

In his opening remarks Mr. Scott referred briefly to the deaths of F. E. Drury, J. L. Manson and A. L. Pey-man, all of whom had done valuable work in the cause of Building Education.

The morning session was then devoted to a study of the question of Productivity. The British Team which recently visited the U.S.A. to study the question of Productivity was reprequestion of Froductivity was repre-sented by the following members of the team, Michael T. Waterhouse, Esq., M.C., PP.R.I.B.A. (Architect), Mon-tague H. Thackray, Esq., F.R.I.C.S. (Sur-veyor), and N. Stanley Farrow, Esq., M.B.E. (Builder).

In his remarks Mr. Waterhouse

pointed out that the Building Industry was rapidly prising itself out of existence, that clients were tired of the too high prices for too little work. emphasised the great need there was in this country of impressing upon the client the necessity of giving to the architect all the information he requires at the time he requires it. Clients in this country have a great facility for changing their minds or even in not making up their minds at all. In his opinion it would be wrong for us to attempt to copy America but we must improve our system. With these imimprove our system. With these im-provements it should be possible to make great strides in lowering costs and improving productivity

He suggested the following lines upon which we should work to bring about the desired improvement:

I. More attention to the practical training of the Architect.

2. Attention to the lessons to be

learned from pre-planning.

CONFERENCE

3. Detailed examination of present

building organisation,
4. Simplification and unification of bye-laws relating to building and the education of these people who have to interpret these bye-laws

Mr. Thackray gave the point of view of the Surveyor. He emphasised that the absence of the Bill of Quantities as a contract document in the U.S.A. changes the whole system. The Americans themselves consider that the English system, if properly carried out, is the better one. Mr. Thackray joined is the better one. Mr. Thackray joined with Mr. Waterhouse in the view that the client must make up his mind at the very beginning of the project, must give the architect, etc., all the relevant details at once and must then abide by the relevant the decisions he has taken. The Sur veyor must be given all the details necessary for him to prepare a proper bill of quantities and the knowledge that these will not be changed will enable the builder to plan accordingly.

Mr. Farrow quoted the fact that the operative in the industry in the U.S.A. is paid a higher wage than any other industrial operative. This creates competition to get into, and to keep in, the industry. There is also a strong desire to enter the industry as apprentices and it is possible for a very high degree of selectivity to be practised thus ensuring that the industry recruits only the best type of youth.

He also drew attention to the American system of appreciating to the full the very important part that the Clerk of Works can, and should play in the question of productivity. He then spoke briefly about the training of supervisors and foremen as practised in the States and compared these methods with those now being developed in this country.

Many questions were asked from the members of the Conference and these were ably answered by the team.

The afternoon session consisted of a short business meeting followed by a discussion on Trade Foremanship Training.

Mr. D. A. G. Reid took the chair for the business meeting and paid tribute to the late F. E. Drury, their President. He then introduced the incoming President, T. E. Scott, Esq., C.B.E., F.R.I.B.A., who in his Presidential Address, made three main points: the need for the continuance of the Secondary Technical Schools of Building with the dual objective of giving boys a reasonable basic education as citizens

and at the same time preparing them for careers in the industry. 2, The need for the developing of some form of examination or test in craft skill and elementary theory which every accepted apprentice must pass before he is judged to be a skilled craftsman. 3, The need for training for the higher branches of the industry, more particularly for the managerial side.

The remarks of Mr. Scott were well made and created great interest. It was obvious that the three points raised were of great importance not only to the industry but to the country at large.

Mr. W. P. L. Eagles spoke on "Trade Foremanship Training." Mr. Eagles pointed out that men attending such training courses should at least have a Final Certificate issued by the City and Guilds of London Institute in one of the building crafts. It was not intended that the course was to be considered as a shortened National or Higher National Certificate Course, the idea behind the course was to give training to the student to enable him to take over the duties as foreman in the trade in which he was a qualified craftsman.

Mr. Eagles then gave a detailed outline of the ground which would be covered in the normal course. Many of the items were sections of the work which had been covered in previous training when the student had been working for the City and Guilds Final Certificate but this time the emphasis

was changed to the Foreman's angle. The course tried to do two important things: 1, Focus the attention of the student on the job from the viewpoint of the foreman; 2, Train the students to talk and to explain details with which they themselves were fully conversant,

A good discussion developed and it was evident that the Conference as a whole felt the need for the developing of such courses.

Any person interested in the work of the Building Teachers' Conference is invited to get in touch with Alfred Emms, the Department of Building, the Technical College, Gravesend, Kent.

An imperative call to local authorities to save every acre of productive agricultural land by ensuring that it is not taken for development when less good land would serve the purpose is made in a circular issued by the Ministry of Town and Country Planning.

Planning and development, the circular points out, are not the same thing, although they are often popularly confused. It is the planner's job to try to reconcile the conflicting demands of building and agriculture.

* Ministry of Town and Country Planning Circular No. 99, "Safeguarding of Agricultural Land." (H.M.S.O. price 2d.)

L I V E R P O O L SCHOOL OF ARCHITECTURE

Presentation of Reilly Medals and Prize Fund to the University of Liverpool, and Exhibition of Students' Work

THE task of the Reilly Medal and Prize Fund Committee was brought to its final conclusion at a ceremony which has recently been held in the Liverpool School of Architecture, when twenty-one bronze copies of the Reilly Medal and cheque for £1,369 were formally accepted by the Vice-Chancellor, Dr. J. F. Mountford, on behalf of the University of Liverpool. The ceremony was attended by other Officers of the University, the staff of the School, and some two hundred students, chiefly from the Third and Fifth Years.

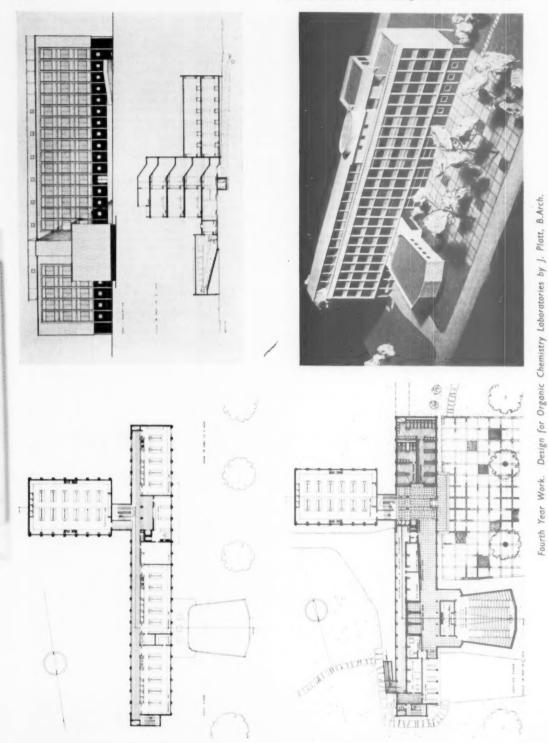
The Committee itself was represented by its Chairman, Mr. N. J. Aslan, DIP.ARCH., A.R.I.B.A., DIP.T.P., A.M.T.P.I., Mr. W. Crabtree, DIP.ARCH., F.R.I.B.A., Mr. J. H. Forshaw, M.C., M.A., B.ARCH., F.R.I.B.A., M.T.P.I., and Mr. A. G. Sheppard Fidler, M.A.,

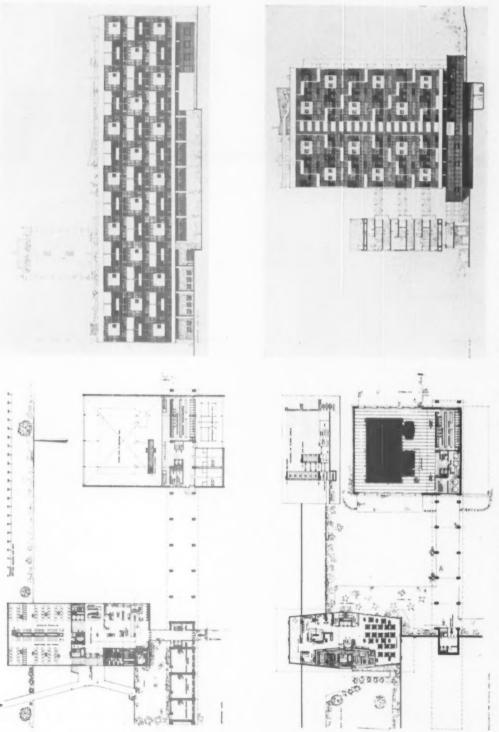
B.ARCH., F.R.I.B.A., DIP.C.D., A.M.T.P.I., Hon. Secretary and Treasurer of the Appeal Fund.

Tributes to Sir Charles Reilly were paid in speeches by the Vice-Chancellor, Mr. Aslan, Mr. Sheppard Fidler and Professor Budden, and, at the conclusion of the ceremony, representatives of the Committee were entertained to luncheon by the Vice-Chancellor.

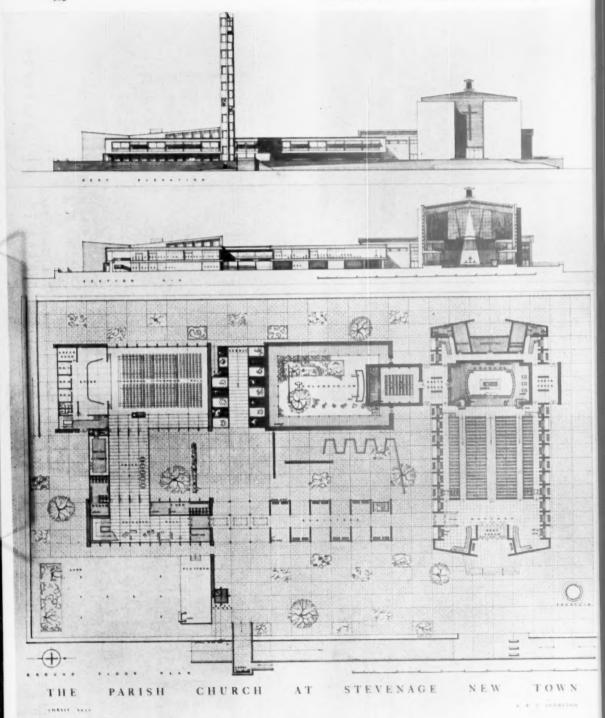
At the ceremony it was stated that the Medal and Prize (value £35), which are to be offered annually for the best thesis design as submitted in project drawings, will be awarded for the first time at the end of the current session.

In connection with the ceremony a small exhibition of recent and current work was on view in the School, and some of the models and drawings which were then shown will be found illustrated on the following six pages.

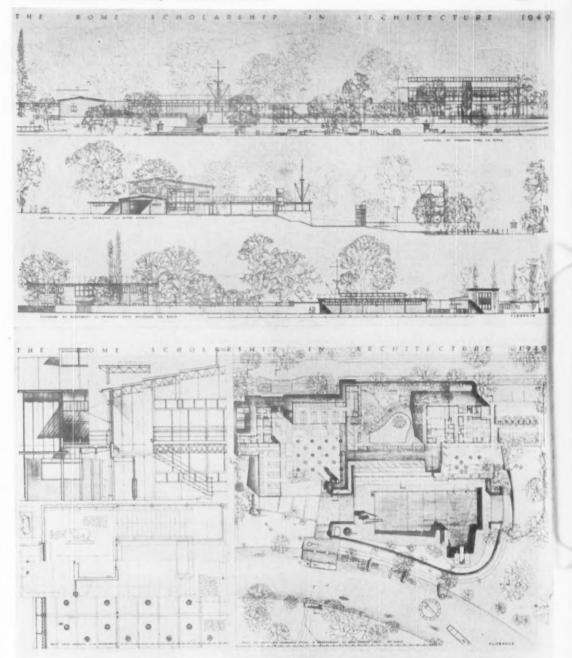




LIVERPOOL 0 F E. Thomas, B.Arch. NIVERSITY La. CA Thesis Design: Flats at Roehampton, TURI ARCHITEC Work. Fifth Year SCHOOL 70 0 0 œ 3 1 1 7



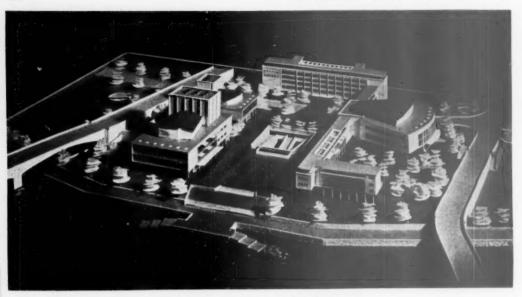
Fifth Year Work. Thesis Design by A. R. C. Johnston, B.Arch.



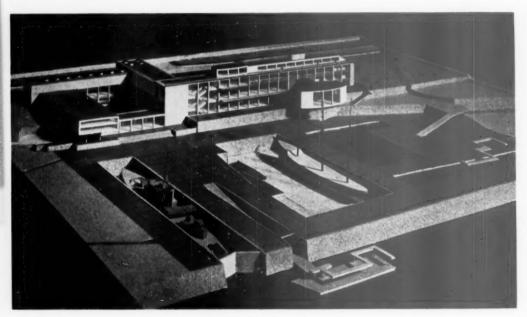
Rome Scholarship, 1949: Winning design by Ian Melville, B.Arch.

Subject: Open-Air Swimming Pool and Restaurant

LIVERPOOL SCHOOL OF ARCHITECTURE



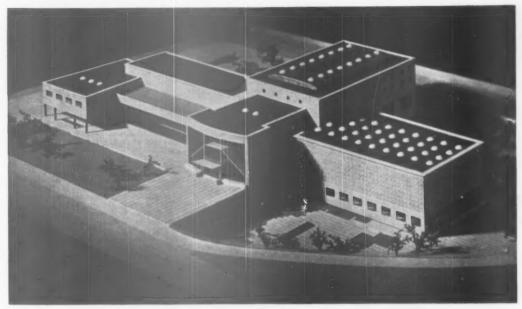
" A National Theatre on the South Bank, London" by J. K. O. TREW, B.Arch.



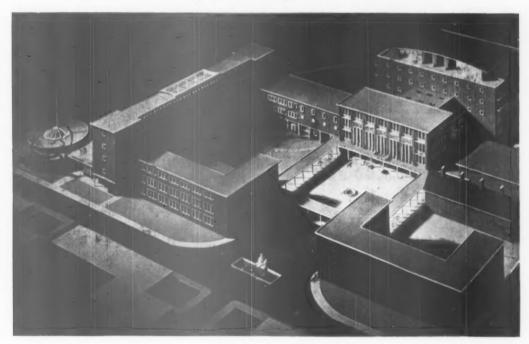
"A Maritime Museum, Liverpool" by BRIAN RICHARDS, B.Arch.

Fifth Year Work: Models supplementing sets of project and working drawings of thesis designs

LIVERPOOL SCHOOL OF ARCHITECTURE



" A Central Library, Preston " by G. W. C. CASSIDY, B.Arch.



" A Civic Centre, Canterbury " by P. R. DIPLOCK, B.Arch.

INTERNATIONAL UNION OF ARCHITECTS Summarv of Bulletin No. 49

THIS Bulletin deals principally with the Meeting of the Executive Committee held in Paris on October 5 and 6, 1950, and with the reports on various

matters which were presented.

At the beginning of the meeting, the Secretary General, M. Vago, reported on matters of administration as between the general Secretariat and the various national committees, and complained that liaison was not all it might be.

A short discussion followed, in

which various solutions were suggested, but no final conclusion was reached.

Following this, some account was given of the activities of the various working committees.

Finance Committee

M. Vouga was appointed Chairman and Mr. Carpentier was appointed Honorary Secretary.

Committee on Architectural Education

Mr. Walker (U.S.A.) reported that the American Institute of the American Institute of Architects was carrying out an extensive inquiry the problem of architectural education, and offered to put the result at the disposal of the Committee.

The Executive Committee then considered the aims of the Working Committee on the Status of the Architect, and observed a certain similarity between the problems with which it was dealing and those of the Committee on Architectural Education. It was thought that very close liaison should be maintained between the two. The Committee on the Status of the Architect had not yet met, but a most interesting question-naire has been sent out by its Chairman. M. Bens, to all Committee members. The Executive Committee decided to request M. Dameron, Chairman of the Committee on Architectural Education, to examine the questionnaire in collab-oration with M. Bens, with a view to an eventual amalgamation of the two Committees.

Hospitals Committee

M. Vischer, the Chairman, recalled that the Committee was formed at the request of several sections. It has remained inactive for some time, as a number of its members had failed to reply to questions sent to them by the Chairman. He had also met Mr. Stephenson (Australia) and after a discussion with him, a questionnaire had been drawn up which was to be sent out to all members of the Committee. M. Vischer hoped that the Committee would be meeting in the near future.

Committee on Copyright

M. Vischer, who is also Chairman of this Committee, said that it was hoped to hold the first meeting very soon. preparation he had made various contacts. M. Vago pointed out that the I.U.A. ought to consider the many and difficult problems involved in artistic copyright, not only from the pro-fessional angle, in such a way as to be able to advise legislators, but also from a more general point of view. He recalled that a very interesting dis-

cussion on the matter had been held in 1939 by the Reunion Internationale des Architectes, as to whether artistic copyright was beneficial to the development of the arts, and in particular,

Committee on International Competitions

The Executive Committee took note. with the greatest satisfaction, of the work of this Committee, which had drawn up a set of regulations which had been widely circulated to serve as a guide to the organisers of competitions

Committee on Rules of Procedure

It was also noted with satisfaction that the Committee on Rules of Pro-cedure had completed its work. It was further noted that the Committees on Mechanisation and Mass Production Building and on Town Planning would be meeting shortly.

M. Gutton asked that, as a general rule, the agenda for the meetings of each committee should be sent to national sections. These should be kept aware of matters for study, and should work in close collaboration with their national Working Committees (where such existed). The Committee expressed their agreement with suggestion.

he Executive Committee having decided that the composition of the various Working Committees was not always satisfactory, agreed to empower the Secretariat to modify the composition of these Committees where necessary, on the understanding that national sections should be informed first and given opportunity to make their representa-tions to the Executive Committee.

M. Vago explained the difficulties of the general Secretariat, in view of the number and complexity of its tasks, and asked leave to select a few young and energetic architects of his choice, who would help him by taking responsibility for the co-ordination of various matters under his general direction.

The Committee agreed to orinciple, and accordingly M. Jean Eschumi was nominated for liaison Tschumi was nominated for liaison with U.N.E.S.C.O., and M. Vouga as General Liaison Officer for Working Committees. Matters of Building Documentation were entrusted to M. Ceas.

International Competition

The Government of Ethiopia having invited the I.U.A. to nominate two members to serve on the Jury of Assessors at Addis Ababa, the Committee appointed Sir Patrick Abercrombie and M. Jena Tschumi. Sir Patrick Aber-crombie being unable to accept, M. Andre Gutton, Chief Government Architect and Professor at l'Ecole nationale superieure des Beaux-Arts de Paris, took his place.

1951 Congress

The Committee instructed the Secretary General to follow up the suggestions, which had previously been discussed of making Morocco a venue, or

alternatively Portugal or Turkey, where hospitality had been offered by the After some dissections concerned. cussion it was decided that the theme, the programme, the Presidents of Sessions and the Rapporteurs should be the same as those fixed at Gothenburg for the abortive Warsaw Congress. The next meeting of the Executive Committee was fixed for June, 1951,

to take place in Italy.

MARS Junior Membership

The MARS Group—the English Branch of CIAM—has decided to widen its activities and improve its link with the younger generation of English architects by forming a new class of Junior Membership. This makes mem-Junior Membership. This makes mem-bership open to any bona fide student of architecture or of the allied arts or sciences; previously it has been largely restricted to practising designers elected on the basis of executed work. work of MARS has also until now been mainly in London or in SPAR (Scottish equivalent of CIAM), and it is hoped that students in the more progressive schools outside London will take this opportunity to form regional groups where the battle of architecture has hardly begun.

The organised work of MARS, following that of CIAM, is now centred on six standing commissions MARS. working respectively on: planning, (2) The inter-relationship of the visual arts, (3) The reform of architectural education, (4) New building techniques, (5) Legislation for planning, and (6) The social programme of archi-Apart from this MARS has tecture. the task of organising the Eighth Congress of CIAM which is to be held in England in the summer of 1951. The main theme of this Congress is the

nucleus of a community The only stipulation for candidates Junior Membership is that they should be fully prepared to take part in the work of the Group and should be sympathetic to its aims. Application for membership must be sponsored by two Full Members who are satisfied that the new Junior Member is willing able to contribute to the work of MARS. The entrance fee for Junior Members will be 10s, with a subsequent annual subscription of 10s. beginning on January 1 after election. Junior Members will have the same rights and facilities as Full Members except that their representation on the Executive Committee will be limited. with the transition from student to professional status, it has been decided that Junior Membership should automatically lapse after three years, when fresh sponsorship would be needed, either for a further term of Junior Membership or for Full Membership,

Any student who wants to become a Junior Member of MARS should write to the Secretary: Gontran Goulden, at 9 Conduit Street, W.I (clearly marked MARS Junior Membership) who will give them more information about the work of MARS.



The giant excavator has become a symbol of our time, for its function is to help re-shape the world. And excavators made by Newton Chambers are busy from the Arctic to the Antarctic. They are playing a part in projects as varied as the Festival of Britain site and the recovery of stone from the frozen north for paving the streets of London. They can

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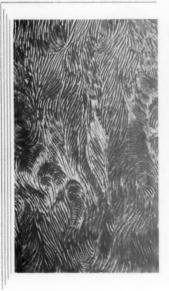


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NEWS of the BUILDING INDUSTRY

BUSINESS WITH SWEDEN

IN the past 11 years—the period since the last full scale report on commerce in Sweden was published—there have been, to quote the report "remarkable shifts in the distribution of her overseas trade," without any substantial deterioration of her economy.

Before the war, about 50 per cent. of Sweden's trade was with Germany, the U.S.A. and the U.K.—in that order for imports. The biggest market for Sweden's exports was the U.K.

During the war the Swedes were permitted to set aside a proportion of profits to write off—over six years—the cost of plant and to build new works and purchase new machinery. Consequently, Sweden obtained a flying start on U.K. manufacturers.

At the end of the war, Sweden was forced into a number of bi-lateral agreements. The element of competition from foreign products was, to some extent, removed as supply possibilities were governed by the limitations of the quotas. The policy of limiting imports by quota restriction has now been modified by the introduction of a list of certain goods free from quota restriction, This list represents over 50 per cent of the value of Sweden's imports of raw materials, foodstuffs and manufactured goods, calculated on the basis of imports in 1948.

So far as building products are concerned, the list includes hoists, cranes and pumps, electric motors, incandescent lamps, insulated wire and cables, tractors and linoleum.

In 1949 out of a total value of U.K., exports amounting to £47 million f.o.b., the following items are of interest, though of course the breakdown does not show what proportion of those items represent goods or plant used in

or for building. Excavators, etc., £425,558, Electrical motors and parts, £277,663.

Floor coverings, £281,156. Iron and steel manufacturing, £2,593,579.

The trade agreement for 1950 provided for U.K. exports to Sweden at an estimated value of about £70 million f.o.b. While this is encouraging, "it should be remembered" the report states, "that Swedish industry is highly organized and efficient. This is a high quality market and it is useless to offer

second rate goods."

The progressive liberalisation of trade and the return to the buyers' market mean that British goods will now have to be sold on their merits at competitive prices. The opportunities it seems are growing for the U.K. exporter. But so is the competition.

What has this report to say about the potential market for exports from this country connected with building?

country connected with building?
In 1930 aluminium imports to Sweden
were 4,703 tons. Out of ten suppliers,
the U.K. was second to Norway. In
1949 aluminium imports of 13,359 tons
came principally from Canada.

Non-ferrous metals in sheet and

The overseas economic survey for Sweden, dated April 1950, but held up we gather by printing troubles, is now available from H.M.S.O. price 3s. 6d. The survey makes interesting reading, the views expressed in the report being those of the author, N. S. Roberts, C.M.G., O.B.E., Counsellor (Commercial) to H.M. Embassy at Stockholm. The introduction covers Sweden's economy during the war, her trade development since the war and her general economic position. To those who have traded—or attempted to trade with Sweden, much of the report will be familiar. Nevertheless, there are parts of it which those in the Building Industry, who are interested in doing business in Sweden, might read with advantage. The accompanying article is condensed from those sections of the report which apply to building and allied interests.

strip form are in demand as well as

rods, tubes and wire.

Of machinery, the report says that Sweden cannot meet the demand for machinery for her own timber, paper and other industries. Despite earlier licence difficulties, a wide range of machinery is now on the free list and U.K. exporters have a splendid opportunity of obtaining a large share of the heavy imports. But manufacturers are advised that Swedish safety regulations are strict, and good orders have been lost in the past through offering machinery which is not entirely encased.

Electrical machinery and goods account for about one-third of Sweden's machinery and apparatus imports. The prospects for exporters from this country for the next few years should be excellent in this line. But a warning is given about increasing German competition. Moreover, Swedish practice differs considerably and therefore calls for special design of goods for export. Copies of the Swedish regulations printed in English are available for perusal at the Commercial Relations and Export Department of the Board of Trade, London.

Plate glass is at present scarce in Sweden, despite building restrictions. Importers, however, according to the report, have shown little interest in British made window glass, owing to the relatively high price.

The report makes an interesting comment on paint. It says "the quality of British paint is generally held to be high... The Swedish taste for domestic paint is frequently for lighter colours not popular in Britain."

The main demand for British paint at present is for varnish for insulating cables, cement colours, etc. A section of the report deals with wood.

There is a demand for tools, in particular machine and hacksaw blades, drills and carpenters' tools, ratchet screwdrivers, pliers, measuring tools, etc. Before the war Germany and U.S.A. were the chief suppliers.

In the realm of plastics, Urea, formerly largely obtained from Germany, is now also imported from U.K. who are at present the most important suppliers

of phenolic resins.

Dealing with methods of doing business in Sweden, the report draws attention to the position of agents.

No foreign firm can work as such in Sweden, it must set up a Swedish company, of which the majority of directors are Swedes. Generally, foreigners are barred by law from working in Sweden as agents of a foreign firm. Only a few British subjects hold the King's special permission and there is a very strong feeling against purchasing goods from non-Swedish agents. Added to this, it is becoming increasingly difficult to find suitable agents for U.K. firms, as the market is well covered and importers tend to stick to their old established connections.

The paragraph on Market Research is important. It says "In view of the growing competition facing British goods, in the Swedish market, the importance of careful study of local market conditions and requirements by U.K., exporters cannot be too strongly emphazised. Through personal visits ... and assistance from the Board of Trade, extremely useful information can be obtained. But for U.K. firms desiring to make a more scientific approach to their marketing problems in Sweden, there are excellent facilities for carrying out market research on the spot."

Chapter five of the Survey deals with Legislation and Administration. This section describes Government Policy, Industrial Relations, insurance schemes, controls. Information is also given about shipping documents and customs regulations.

Chapter six deals with transport and communications.

Chapter seven—Natural Resources
includes brief information on wallboard and prefabricated houses.

The last page draws the attention of intending business visitors to the services of the Swedish Travel Bureau at 21 Coventry Street, London, W.I (Tele.: Whi 7767). Other information is contained in a booklet "Hints to Business Men Visiting Sweden," issued by the Commercial Relations and Exports Departments of the Board of Trade.



THE ARCHITECT and Building News, December 1, 1950

MOSAICS

PLANT-TOOLS

E 3 6

PLANT—TOOLS

E 3.6

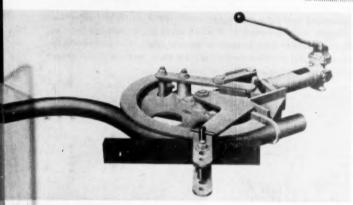
This electric hammer—one of the more recent additions to the manufacturers' range of tools—has now been incorporated in an entirely new building and maintenance electric hammer kit.

The surface was the surface at the surface of 1,600 blows per minute. The surface at the surface of 1,600 blows per minute of the surface of enamed, double sulk covered copper wire variable impregnated in the armatires and field coil winding. The final flash test is 1,500 volts.

The switch is incorporated in the handle. All rotating parts are mounted on ball bearings housed in steel liners.

The hammer, cable and accessories fit into a compact steel case for ease of carrage.

The kit includes Rawldrills Nos. 6-22, a holder and commy bar; \$\frac{1}{2}\$ inch and \$\frac{1}{2}\$ inch stonemasons' chisels, comb holder and 6 combs; \$\frac{1}{2}\$ inch and \$\frac{1}{2}\$



PLANT_TOOLS

E 3 7

Designed for use exith a 2 stage hydraulic bendin; machine made by the same firm, this general purpose bending actament will bend, and unloaded to any angle up to and including 180 degrees, the following tubes: copper from 1 inch to 2 inch internal diameter: jight gauge from 1 inch to 2 inch internal diameter: light gauge from 1 inch to 2 inch internal diameter: light gauge from 1 inch to 2 inch internal diameter. It is necessary to use the correct formers. Round solid bar sections from the correct formers. Round solid bar sections from 180 degrees by using simple rolling of the frame carrying the hydraulic pump and the bending arm. The latter rotates round a centre pin in the frame-Bending through 180 degrees is done in 60 degrees stages.

stages.

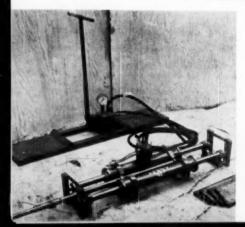
A new service kit for their bending machines has recently been marketed by this firm.



PLANT-EXCAVATING, ETC.

E 7/2

The skip shown on this barrow can be quickly changed and replaced with a flat platform. The bucket volume is 10 cubic feet. It is a strong of the platform of



PLANT TOOLS

E 3 8

A new development of a thrust boring machine which was shown at the recent Public Works and Municipal Services Exhibition at Olympia. This machine, say the manufacturers, can be used for laying services up to 4 inches diameter in roadways. Embodied in the machine is a special design of valve incorporating a selector dial. This enables the operator to give four speeds of thrust to the boring head both in the forward and reverse directions.

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GOOD, BAD OR INDIFFERENT?

By A. FOREMAN

No. 13

Working on when it is frosty

ROSTY weather is rather a nightmare to those responsible for building progress and it is something against which preparation should be made in the Autumn at the latest, so as to have ready the necesary plant and equipment against any sudonset of wintry weather. trades most affected are the bricklayer and concretor whose materials require a fairly long time before reaching a stage of setting when they will not be damaged by frost. The painter and plasterer are to some ex-tent also affected, the former usually not greatly as paint dries fairly quickly and the latter only on external rendering, as internally sufficient protection and warmth may be arranged. I propose to discuss some general points on the precautions to take for brickwork this week and the precau-tions for concrete work next week.

The essentials are two thermometers: firstly the normal glass and mercury type, to be hung in a position which is reasonably well exposed to indicate the air temperature and whether this is tending to rise or fall. Secondly a strong type, preferably of the tubular bi-metal variety, which can be pushed into the cement, aggregate, water or mixed material without risk of damage. Really robust instruments are essential or they will quickly become useless and replacements may be difficult to obtain in an

The other equipment needed includes means of heating water, such as large metal drums, plenty of tarpaulins, rolls of hessian or sacks to cover up brick stacks. heaps of aggregate and sand, finished brickwork and concrete. It is also useful to have corrugated iron sheeting on which aggregates, tools, barrows, etc., can be heated. If the job is large a steam boiler and a large quantity of tubing and fittings will be needed. Last, but by no means least, plenty of braziers and fuel are essential. It is most important that the hessian and sacking and similar materials are dry and kept in dry storage.

Brickwork is usually more simple to deal with than concrete. The important precau-

tion to be taken when there is a risk of frost is to cover up the brickwork as soon as work finishes each day. does not mean casually throwing a few sacks over the work; it must be properly and carefully covered so that all the work in which mortar has not set completely is under cover and not just the top couple of courses. Care has also to be taken that the wind will not draw under the coverings nor lift them off. Remember that the thinner the wall the more care is needed as a greater proportion of the mortar is exposed. If the weather is very cold it may be necessary to lean corrugated iron sheets against the brickwork with braziers underneath. When braziers are used great care must be taken that nothing around them can possibly catch fire; I saw a bad example of this in America where tarpaulins covering a large area caught fire and in turn burned the whole of the scaffold. A layer of bricks or straw on the brickwork before applying the sacking or tarpaulins is a very helpful form of insulation. paulins are a better form of covering than hessian as they do not absorb rain or snow, which may later freeze. It may be necessary to keep brickwork covered for at least three days and even longer in very cold

In cold weather it is wise to use only

freshly mixed mortar as lime mixed overnight may itself become frozen. An increase in the amount of cement helps to speed up the hardening of the mortar and a good mix is—one part of cement, one part of lime and five parts of sand, all measured by volume.

When frost is anticipated brick stacks should be covered as dry bricks will not be damaged. Also cover all other materials and the mixing plant itself so that these are dry and protected from the cold as much as possible. To keep the bricklayers going in really frosty weather warm water will be needed and, if it is very cold, warm bricks also. Bricks can be warmed by placing them on sheets of corrugated iron over a brazier or by forming an enclosure of the bricks around a brazier in a position sheltered from the wind. To make warm mortar heat drums of water to about 140 degrees F. and also warm the sand, which, like the bricks, can be spread on sheeting over braziers. The sand should be warmed up to about 75 degrees F. Mix the warm sand and water with the cement and lime, which are not heated, in the normal way. Care needs to be taken to turn the sand during heating so that it is evenly heated. On large jobs a more convenient method is to pass steam pipes into the

MOSAICS

The names and addresses of manufacturers of any item illustrated in MOSAICS, together with more detailed information relating to their products—including price and availability—will be forwarded to readers on request.

Letters should quote the serial number and be addressed to:

The Associate Editor.
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Please mark the envelope MOSAICS

CONCRETE MIXING & PLACING-3

By ROLT HAMMOND, A.C.G.I., A.M.I.C.E.

It is becoming increasingly evident that the bulk handling of cement on large works is being closely studied, and the method has been employed with considerable success, but the technique demands special equipment and expert knowledge of its use. However, as time goes on it will probably be applied to an ever-increasing extent.

Special types of portable and stationary pumps, various forms of conveyors, each with special features for the various lifts and types of storage concerned, have been developed and are now standard equipment. Lorries of special construction are used for this work, and there are also airactivated cement containers of the self-unloading type, as well as covered cars of gondola pattern with multiple containers. Railway wagons with hopper bottoms and specially designed boats are also employed for bulk cement transport over long distances.

On small jobs cement will always have to be handled in small sacks, but this item alone represents a heavy charge on a large job where considerable quantities of concrete are mixed in a central batching plant, such as the type referred to in a previous article. Paper cement bags, which are now very widely used, are not so expensive as returnable jute sacks; for some reason yet to be explained, a large percentage of these never return to the place of origin! Otway

has given some very interesting comparative figures in this connection: if paper bags are used and 66 per cent. are returned to salvage, the cost in pence per sq. yd. of concrete paving 8 in. thick and of 1:2:4 mix, is about 5d. The corresponding cost per cu. yd. of the same mix of mass concrete is 22.1d.

He has then shown the cost of both these above items for jute bags, which will be greatly reduced according to the percentage of bags returned to the cement manufacturers. When no bags are returned, the cost amounts to 24.5d, per sq. yd. and 110.5d, per cu. yd. respectively; with percentage of returned sacks at 25. 50 and 75, the corresponding costs are 19.6d., 14.7d. and 9.8d. per sq. yd. for the concrete paving and 88.4d., 66.6d. and 44.2d. per cu. yd. for the mass concrete. In every case these figures represent a considerable extra burden on the overall cost of the job, but when considering bulk transport of cement we must take into account the heavy capital cost of the special equipment needed, which will probably be justified only in the case of comparatively large works.

The purchase of cement in non-returnable paper bags is the most favourable manner in which cement can be bought at the present time, but the bulk handling of cement has many outstanding advantages. It is a clean method of transport and can

not cause dermatitis; its use also avoids discomfort to the workmen and damage to their clothes. Moreover, anyone who has worked on large construction projects cannot fail to be impressed by the annoying public nuisance of cement dust, which inflicts much damage on local vegetation.

Elimination of waste is a very important feature of bulk handling, because it has been estimated that I or 2lb, of cement can be recovered by manufacturers from all bags returned to their works. It is logical to suppose that this same quantity will be wasted on a job where non-returnable paper bags are used. Furthermore, in windy weather fine cement dust blows about a job and nobody has yet investigated the damage which it may do to plant and machinery, but it must be considerable! Bulk handling also ensures a steady flow of output, because with bagged concrete a gang must be employed to unload each consignment on arrival.

The modern tendency on large projects is to employ bulk handling of cement.

aggregates and other constituents of the concrete being delivered to the site by a conveyor belt system discharging into a central mixing plant, where all operations can be controlled on a scientific basis and regular tests carried out by the usual well-established methods. Any scheme which reduces time of construction and which increases efficiency should be encouraged, but it must be remembered that this kind of technique demands special training and very efficient organisation of the works.

One very important point that has occurred to the author is that the success or failure of this bulk handling method will largely depend upon efficient and regular maintenance of the plant. We can imagine a situation where inattention to this important matter may result in the clogging of valves or pipes; or in the rapid depreciation of the machinery employed. The Ministry of Works could usefully conduct a research into this important matter, which concerns the larger types of constructional works.

* INTEREST *

THE REGENT, KING'S CROSS, which reopens as a "live" theatre on Boxing Day, will be the first theatre in the world to be equipped with the new "Atlas" fluorescent stage lighting system recently introduced by Thorn Electrical Industries Limited.

The equipment consists of fluorescent four colour lighting controlled by a 72-way Dimmer Board specially designed for both fluorescent and incandescent dimmers. This board is fitted with 2-way and "off" colour master switching on the fluorescent section, and individual 2-way and "off" on the incandescent section. The fluorescent dinmers are arranged in four rows and the incandescent in three rows. The stage is equipped with a Float, 3 Battens, a equipped with a Float, Battens, a Cyclorama batten and there are 10 dip plugs provided so that the new 4 colour fluorescent Wing Floods or Ground Rows may be used in conjunction with the incandescent spots which are, of course, an essential part of stage technique.

The total lighting load is only 12.8 kws.

COSTING OF BUILDING WORK

Modern Methods of Internal Check Control

by S. Howard Withey

WHILE some estimators rely on books for a good deal of their information the work of costing is varied and demands definite qualifications and experience of all types of building equipment and methods of construction and although some useful knowledge can be acquired from books it may prove to be highly dangerous unless it is backed by practical experience.

The value of time and an appreciation of how much work can be done in a given time are important factors; a first-class workman may be able to lay out work satisfactory as well as perform the necessity operations, but when it comes to estimating how long a particular job will take he may he very unreliable, while another workman, although inferior as a craftsman, may have a better knowledge of the time factor and may prove to be a much more efficient estimator, particularly if he is able to decide what machines and tools should be used on specific work and has had experience of ratefixing methods. Experience has show that unless the work of estimating is performed from start to finish by the same department it will be difficult to guarantee efficiency and avoid losses.

In addition to the four main headings, vit.: labour, materials, equipment and overheads, the estimates should include such items as freight and packing charges, bonus, etc., and when forwarding to the production department the quantity and quality of the materials should be clearly stated and a list of stores made out to enable the right types to be chosen. Unless specifically sanctioned, no stores such as paints, liquid stone, colours, dressings or coatings other than those enumerated in the list should be used.

To determine the labour cost it may be necessary to break up the piece parts and assemblies into operations involving the use of the most economical machinery and tools; consequently, the estimate sheet should be provided with columns or sections for describing the equipment to be used, together with a detailed description of the operations and the bonus allowed. After calculating the cash values by reference to the number of hours and rates of labour perhour a quotation can be inserted in a column provided for the purpose.

A special effort is called for to ensure that the figures for labour are not exceeded. When two or more similar machines are in use in different shops, one on high-class precision work, the machines will, of course, be rated differently and it is usually possible to determine an average which should not be exceeded without consultation with the When departments are divided estimator. into appropriate classes of equipment of the or similar efficiency, the departmental method of calculating the on-cost may be satisfactory but unless the parts or sections to be produced are few in number the machine hour rate is likely to be the best In addition to the cost of new conetc. needed to complete each operation, the estimate should include an adequate charge for the cost of cleaning, overhauling, testing, repairing and adjusting machinery and equipment, and if there is a possibility of a repeat order it may be advisable to balance the operations by the acquisition and installation of special plant.

Tool bills are usually made out in triplicate, one copy being passed to the planning department, another to the cost office and a copy retained on the file, and while tools of a special type needed on a particular job should be included, small general tools such as taps and drills, etc., are best covered by an overhead charge. The machines and hours required should be suitably summarised, and when the actual costs have been arrived at these should be passed on to the estimator for comparison with the estimates and as a guide for tuture quorations for work of a similar character.

By means of cards providing the basic data it is possible to check equipment and control costs, providing the foremen understand and appreciate the underlying principles and are in a position to apply underlying them. The movement, performance and operating cost of productive assets can be recorded on standardised forms to provide the information needed for estimating, and where possible it is advisable to correlate the records with the division of internal responsibility. Sometimes the responsi-bility for maintenance is assumed by the head office, but use and performance are matters resting with the contract management, and in my next article the details to be shown on the plant records will be indicated.

INDUSTRIAL SAFETY TRAINING COURSE for Safety Officers and Executives are being held infroughout 1951. They will be held at Glyn House, Broadstairs, from January 16 to 27 and at Wadham College, Oxford, from April 2 to 14 and September 10 to 22. Application either for a vacancy or for a descriptive booklet should be made to: Industrial Safety Division, R.S.P.O.A. 131 Sloane Street, London, S.W.I. There are vacancies on most of the courses.

A CALL FOR TENDERS No. E.25/1950 by the Brisbane City Council for the supply of porcelain insulators and hardware is reported by the U.K. Trade Commissioner at Brisbane.

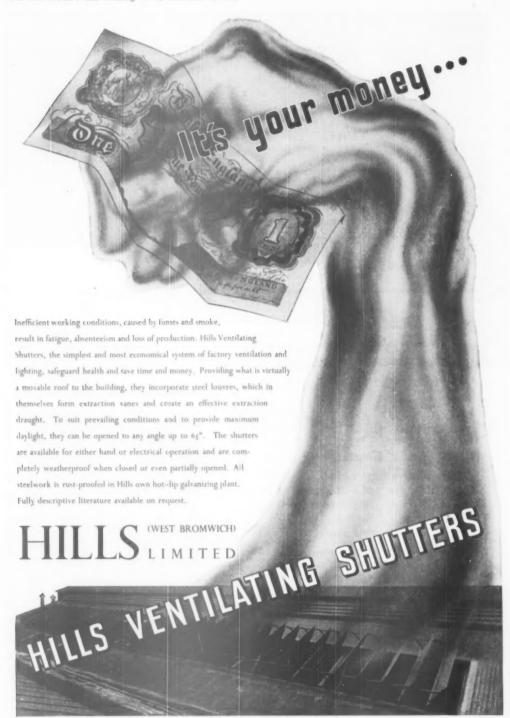
Attention is drawn to the fact that intending tenderers must purchase a copy of the specification in order to submit a tender. Copies may be obtained from the Manager, Department of Electricity, Kelvin House, Adelaide Street, Brisbane, at the cost of 10₅, 6d, per copy.

Tenders must be received not later than 12 noon on January 12, 1951, by the Town Clerk, Brisbane City Council, City Hall, Brisbane.

One copy of the tender form and specification is available at the Board of Trade Commercial Relations and Exports Department, Thames House North, Millbank, S.W.1, and will be retained for inspection until December 1, 1950, in Room 1092 (Victoria 9040, extension 2799). After that date it will be loaned out to interested United Kingdom firms in order of application under reference No. C.R.E. (IB) 70880/50.

MR. ERNEST MARPLES, M.P., writing in the Financial Times of November 12, suggests that a method of increasing the number of skilled men needed for building work is to reduce the apprenticeship time during the present emergency. Mr. Marples would also "not exclude from his mind" the possibility of using skilled Italian labour. This would enable British unskilled labour, at present unemployed, to join in and be usefully occupied.

BRITISH ELECTRICAL AUTHORITY have sold the business of Tricity Cookers Ltd., to Thorn Electrical Industries Ltd., makers of Atlas electric lamps, Ferguson



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GLASCRETE

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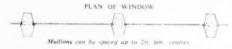
The illustration shows another effective use of Glascrete by Wm. Perrings, Architect, Brian Peake, Esq., F.R.I.B.A., in their Watford Store.

This very practical method of construction is both decorative and economical!

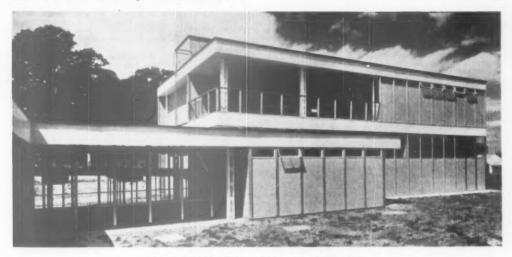
-"and besides, Glascrete needs no painting!"



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EXPERIMENT IN PLASTICS

These classrooms at Oxhey secondary school, Herts, designed by C. H. Aslin, County Architect, have been built with 1 inch laminated plastic panels, externally and internally. The panels are held in extruded aluminium frames. The 3 ft. 4 in. wide panels were cut from sheets which are manufactured in 4 ft. widths. (For method of manufacture see A. & B.N. 6.10.50, p. 397.) The honeycomb cores of the external panels are filled with insulating material before leaving the factory.

radio and television and Mary Ann house-hold appliances.

The Tricity firm is one of the oldest in the industry. A controlling interest in Tricity Cookers Ltd., was acquired in 1946 by the County of London Electric Supply Company, ultimately vested in the British Electricity Authority which has operated the Tricity business until now.

It is understood that the production of Tricity Cookers will be considerably expanded but that the marketing policy will remain unchanged.

MESSRS. WOODS OF COLCHESTER LTD., fan manufacturers (an associate company of The General Electric Co., Ltd.) have moved their London offices. From November 27, 1950, their new address is: 58/62 High Holborn, London, W.C.1. Telephone number—Chancery \$474/8.

THE CATERPILLAR TRACTOR CO., Peoria, Illinois, announce the reorganisation of their distribution and service facilities in U.K. and Eire. They have appointed four new distributors.

In the Home Counties, Fred Myers Tractor and Equipment Company, of 4 Tilney Street, Park Lane, W.I., a new subsidiary of H. Leverton & Co., Ltd., will serve the City of London, Bedfordshire, Berkshire, Buckinghamshire, Essex, Hampshire (East of Southampton Water), Hertfordshire, Kent, Middlesex, Oxfordshire, Surrey, Sussex, Pending completion of new depots, spare parts and service will be handled by the Leverton main depot in Spalding, Lincolnshire.

colnishre, Bowmaker (Plant), Ltd., Willenhall, Staffs, will serve Cornwall, Derbyshire, Devoshire, Dorsetshire, Gloucestershire, Hampshire (West part), Monmouthshire, Shropshire, West part), Monmouthshire, Warwickshire, Wiltshire, Worcestershire and all counties in Wales, Isle of Wight and Channel Isles.

Wight and Channel Isles.

John Blackwood and Tinto, Ltd., whose main depot is in Rigby Street, Glasgow.

M.o.W. LECTURES December 5

Mining Subsidence Problems Affecting Housing Construction.
7.15 p.m.: Technical College, BARNS-LEY.

Some Mechanical Aids Developed for Building.
7.15 p.m.: Tempest Anderson Hall, YORK.

Essentials of Good Concreting. 7.0 p.m.: Art Gallery, PLYMOUTH. Economy in Traditional House Building. 7.15 p.m.: Co-operative Hall, OLD-HAM.

Powered Hand Tools.
7.0 p.m.: Hammersmith School of Building, Shepherds Bush, W.12.

Some Mechanical Aids Developed for Building. 7.15 p.m.: Technical College, HUD-DERSFIELD.

Foundation Problems.
7.15 p.m.: City Technical College, LIVERPOOL.

Some Noise Problems and their Solution. 7.0 p.m.: Digbeth Institute, BIRM-MINGHAM.

Good Practice in Plumbing. 7,15 p.m.: Gas Show Rooms, NOT-INGHAM.

Essentials of Good Concreting. 7.30 p.m.: Municipal Hall, TAUNTON.

December 7
The Behaviour of Clay in Foundations.
7.0 p.m.: Creighton School, CARLISLE.

Composition and Applications of Paint. 7.0 p.m.: Walker Hall Technical College, SHREWSBURY.

will also open additional fully equipped depots in strategic centres in Scotland. Sam McCormick Ltd., have been

Sam McCormick Ltd., have been appointed distributors for Eire and Northern Ireland.,

DUE TO INCREASES IN RAW MATERIALS and higher labour costs incurred over a long period, The Hotpoint Electric Appliance Co., Ltd., announce that as and from December 1, 1950, the List Prices of their complete range of "Torribar" Radiant Boiling Plates will be increased by 10 per cent.

THE "F.B.I. REGISTER OF BRITISH MANUFACTURERS," the standard work of reference on British goods and their manufacturers, is now available in the 1950-51 edition.

This new and improved edition contains a classified buyer's guide listing in alphabetical order 5,000 products and services (showing under each heading the British firms that supply them) and, in another section, are full addresses of F.B.I. members (including telegraphic addresses), telephone numbers, their main products and, in many instances, details of home and overseus branches and agencies.

Trade Associations affiliated with the F.B.I. are classified in this Register both by trade categories and alphabetically and, to assist overseas buyers in tracing goods of which only the brand or trade name is known, the Register carries an alphabetical list of brand and trade names and also reproduces several hundred registered trade marks classified by trade categories for easy reference.

The Register is being distributed to importers, buyers, shippers, commercial attachés, consuls, libraries and trade promotion centres throughout the world.

motion centres throughout the world.

Home inquiries for copies should be addressed to Kelly's Directories Ltd., 186

Strand, London, W.C.2. The cost is £2 2s.

THE UNITED KINGDOM TRADE COMMISSIONER at Bombay has reported

that the Director of the Commerce and Industries Department (Central Stores Purchase Branch), Hyderabad, has issued a call for tenders for the supply of tipping wagons, light railway materials, workshop and earth moving equipment, for the Public Works Department of Hyderabad State.

Tenders should be addressed to the Director of the Commerce and Industries Department at the address given above and should reach him by 4 p.m. on December 14.

Tender forms are obtainable from the Director of the Commerce and Industries Department on a cash payment of Rs. 10s. (Rupees ten only) and are available for sale up to December 7.

A copy of the tender documents is available for inspection by representatives of interested United Kingdom manufacturers at the Commercial Relations and Exports Department (Industries Branch), Board of Trade, Thames House North (Room 1086), Millbank, S.W.I. (Telephone Victoria 9040, extension 3042.) A second copy is available for loan to United Kingdom manufacturers in order of written application to the Department. Reference C.R.E. (I.B.) 70845/50 should be quoted.

It would be appreciated if United Kingdom firms submitting tenders would notify the above Department in order that the Trade Commissioner at Bombay may be informed.

AT LONDON AIRPORT a vehicle subway, 2,000 feet long and 80 feet wide, to link the new main South Terminal disembarkation area at London Airport with the Bath Road, is now being built. The main contractors are Taylor Woodrow Construction Ltd.

The reinforced concrete subway will contain two carriageways, each 26 feet wide, for main traffic and two suspended cycle



CRANKY OPERATION?

This box mortar spreader (previously referred to in the A. & B.N. 18.8.50) is shown laying mortar by the turning of a crank. Head joints are buttered by standing the blocks on end tightly against each o her and turning the spreader along them Produced by the State College, Washington, this original model is being designed to suit various widths of wall.

tracks. The floor will be approximately 30 feet below ground level and there will be a 10 toot cover of earth over the roof. The main part of the contract will be completed by the end of 1952.

MR. P. J. FERGUSON, Scottish Branch Manager of the British Aluminium Co. Ltd., is to take up a new appointment in the Head Office in London as Export Sales Manager from January 1 next. Mr. M. J. J. Richards, of the Company's Midland Branch Office, has been appointed Scottish Branch Manager in place of Mr. Ferguson, from December 1 next.

THE BRITISH STANDARDS INSTITU-TION have recently published a revision of B.S.673:1950. Pneumatic tools and accessories.

This standard deals with the dimensions of shanks for use with rock drills; chipping and caulking hammers and stone tools; picks; demolition picks; and spades; concrete breakers; and riveting hammers.

In many instances it has only been found necessary to confirm dimensions of shanks which have long been used in the industry and adopted by many of the makers. This standardization does not, therefore, seriously affect existing pneumatic tools.

The standard includes a comprehensive series of definitions relating to pneumatic appliances.

Copies are obtainable from the British Standards Institution, Sales Department, 24 Victoria Street, London, S.W.I. price 3s. post free.

MR. L. G. R. OLIVER has joined the London Office staff of Thos. W. Ward Ltd., Albion Works, Sheffield. He is in charge of the sub-section of Contractors' Plant Dept., dealing with Contractors' Tools. Mr. Oliver was formerly London Manager to George Pike Ltd.

MESSRS. GANDY LTD. (formerly known as The Gandy Belt Manufacturing Co. Ltd.), Merseyside Manufacturers of Belting, Brake Lining, Stair Treads, etc., have moved their Manchester depot from 4 Wood Street to 19–23 York Street, Manchester, 1. Telephone, Ardwick 2998.

COUNCIL PROCEEDINGS

This column summarizes news of the building industry contained in the reports of Council Proceedings received in this piffice. Dates of the council meetings are given under each heading.

L.C.C.

21-11-50.

It is recommended that the contract for the Royal Festival Hall (with Messrs. Holland & Hannen and Cubitts be extended to include the provision of electrical equipment for stage lighting at a cost of £3.651. Negotiations are proceeding with a view to the presentation of a season of ballet during the B.B.C. Promenade Concert Season in 1951.

Mr. J. W. Oatley, A.R.I.B.A., is recommended for temporary promotion to sentor architect in the housing and valuation department at £1,000 p.a., rising to £1,300.

The tender of Richard Costain Ltd. (£42,927-78, Ld.) for approach works from V-ctoria Embankment end of Northumberland Avenue to the pedestrian bridge to the Festival of Britain has been accepted subject to the Minister of Transport's approval. Other tenders were Holland & Hannes and Cubits L7d., £46,113 zs. Ld.; and Fizzbatrick & Son (Contractors) Ltd., £47,869-68, 8d.

A supplemental estimate of £210 for Power boxes for old people's flats at Becontree is recommended for approval.

A scheme, estimated to cost about £270,000 for extending and improving the facilities at Battersea Polytechnic, which will provide accommodation for another 650

students has been approved and the Council is being recommended to accept the liability for a building grant to the governors of the Polytechnic to cover the expenditure.

A scheme has been prepared for the development of the extension to the Ruskin Park House site. Camberwell, about one acre, by the erection of a five-storey block of twenty flats. The total estimated cost of the scheme is £52.200.

The Committee have accepted a tender, amounting to £127.087, for the construction of five blocks (Nos. 1 to 5) of flats and other work on the Usk Road site, Battersea. There will be 71 flats in one three-storey, one two-storey and three five-storey blocks. Lifts will be installed in the five-storey blocks and a laundry, children's fitted playground and thirty-four perambulator sheds will be provided.

A tender amounting to £31,680, has been accepted for the construction of a four-storey block of sixteen flats and nine perambulator sheds at Clapham Park estate extension, Wandsworth.

A scheme has been approved for the development of the Deptford Green site on the Hughes Fields estate, Greenwich. It is proposed to construct a five-storey extension, containing twenty-four flats, to Hughes House, an existing block and in the extension there will be a small laundry and six perambulator stores. A children's play space will also be provided. The total estimated cost of the scheme is £47,100. It is proposed to provide a five-storey block of thirty flats and sixteen perambulator sheds

on the Northwold Road (No. 2) site, Hackney. The flats will be served by lifts and there will be a drying room with heated

SUMMARY

cabinets. The site has an area of about 0.86 acre, of which approximately 0.1 acre is to be reserved for road widening. The total estimated cost of the scheme is £59,900.

The Committee have accepted a tender for the construction of three blocks of flats, mainly four-storeys in height, two houses, thirty-seven perambulator sheds and stores and other works on the Streatham Hill site, Wandsworth. There will be seventy-four flats with staircase access and a laundry will be provided in one of the blocks.

The tender for block 1 of flats and other works amounts to £72,993 15s, 4d., and the rates and prices in the bills of quantities for this block will be used to value the cost of blocks 2 and 3, the two houses and other work. On this basis the estimated cost of these remaining two blocks, two houses and other work is £82,000.

A tender amounting to £189,238 has been accepted for the construction of ninety-five flats in three five-storey and two three-storey blocks, a laundry and a clubroom, fifty-three perambulator sheds and ancillary works on the Weir Road site. Wandsworth, Lifts will be provided in the five-storey blocks.

To encourage the growth of balanced communities and to provide greater variety of elevational treatment, a limited number of the houses on the Council's out-county estates are being provided for the higher income groups.

Notes below give basic data of contracts open under locality and authority which are in bold type. References indicate: (a) type of work, (b) address for application. Where no town is stated in the

CONTRACT · NEWS ·

address it is the same as the locality given in the heading, (c) deposit, (d) last date for application, (e) last date and time for submission of tenders. Full details of contracts marked * are given in the advertisement section.



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OPEN

LEEDS CITY COUNCIL. (a) Cement. (b) Executive Officer, 43 New Park Street. Leeds, 1. (c) Dec. 4th, 12 noon.

BARROW-IN-FURNESS B.C. (a) Secondary School, Rating Lane. (b) Borough Engineer, Town Hall. (c) 2 Gns. (e) Dec. 19.

HARROW U.D.C. (a) old people's bunga-lows. West House Estate. Pinner. (b) Engineer and Surveyor, Council Offices. Stanmore. (c) 2 Gns. (e) Dec. 15.

WALSALL E.D. (a) Forest County Secondary School, Hawbush Road, (b) H. H. Lavender, Son & Close, 65 Upper Bridge Street. (c) 4 Gns. (e) Jan. 5.

BURNLEY T.C. (a) Warehouse, Howe Street, (c) 10 a.m. Dec. 11

GILLINGHAM T.C. (a) Alteration to Munic.pal Bldgs. (b) Borough Engineer and Surveyor, Municipal Buildings, Gillingham (c) 3 Gns. (e) Dec. 4.

ISLE OF WIGHT C.C. (a) Exection of kitchen-dining block, etc., at Newport Secondary School Park. (b) S. S. Booth, County Architect, County Hall, Newport. (c) 3 Gns. (d) Nov. 30, (e) Jan. 6 first post.

NORFOLK C.C. (a) Erection of hose drying lower, etc. Fire Station, Gavton Road, King's Lynn. (b) County Architect. 27 Thorpe Road, Norwich. (e) Dec. 8 by noon

NORTH RIDING E.C. (a) New county modern school, Whithy. (b) Architect, A. Graham Henderson, 105 West Regent Street, Glasgow, C.2, or F. Barraclough, secretary, Education Offices. County Hall, Northallerton, (e) Dec. 15.

NOTTINGHAM C.C. (a) Secondary school, Padstow Road, Bestwood Estate Erection in prefab, construction of infants' school, Strelley, (b) R. M. Finch, City Engineer and Surveyor, Guildhall, Nottingham, (c) E2 each contract, (e) 10 a.m. Dec. 14.

BAKEWELL R.D.C., DERBY. (a) 38 Houses in 5 groups. (b) Arnold Lowcock, architect. King Street, Bakewell. (c) 2 Gns. (c) Dec. 15.

WALSALL T.C. (a) 16 maisonettes in two four-storey blocks, Green Lane, (b) M. E. Habershon, Borough Engineer and Surveyor, Council House, Walsall. (c) 3 Gns. (e) Dec. 11.

PLACED

Notes on contracts placed state locality and authority in bold type with (1) type of work (2) site (3) name of contractor and address (4) amount of tender or estimate.

BUILDING

HANTS, WAR DEPT. (1) Misc. work. (3) Henry T. Hill & Sons Ltd., Brookwood.

HANTS. WAR DEPT. (1) Bldg. work. (3) John Hunt Ltd., Gosport.

HERTS, WAR DEPT. (1) Misc. work. (3) Thos. Bates & Sons Ltd., Romford, Essex.

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KENT. WAR DEPT. (1) Bldg. work. (3) C. Jenner & Son Ltd., Foikestone.

KENT. M.o.W. (1) Alterations to Lavatory Blocks and adaptations to Dry Cleaning Room. (2) Duke of York Schools, Dover. (3) R. J. Barwick, Market Street, Dover.

LANCASHIRE, M.o.W. (1) Alterations to Main Bidg, and Boiler Room. (2) Mow Store, Guide Bridge Mill, Achton-under-Lyne. (3) P. Hamer Ltd., Park Street, Swinton, Nr. Manchester.

LEICESTERSHIRE, M.o.W. (1) Erection of Outbuildings. (2) A.T.E., Free Lanc, Leicester. (3) Ford & Weston Ltd., Osmaston Road, Derby.

LEICESTERSHIRE WAR DEPT. (1) Bidg. work. (3) A. H. Taylor (Nottingham) Ltd., Attenborough.

LONDON, M.o.W. (1) Alterations to form Wellington Museum. (2) Ashley House, 149 Piccadilly, (3) F. G. Minter (Decora-tors) Ltd., 4 Buckingham Gate, S.W.I.

LONDON. M.o.W. (1) Adaptations for Branch Post Office. (2) 87/89 Wood Street, Walthamstow. (3) W. J. Cearns Ltd., Carpenters Road, Stretford, E.15.

MONMOUTHSHIRE. WAR DEPT. (1)
Misc. work. (3) J. W. Protheroe & Son, Misc. wor's. (3 Penarth, Glam,

NORTHUMBERLAND, M.o.W. (1) Alterations and Additions, (2) M.o.W. 1 George Street, Newcastle-on-Tyne. (3) C. S. Hogg (Builder) Ltd., 259/261 Two Ball Lonnen, Newcastle-on-Tyne.

NOTTINGHAMSHIRE. M.o.W. (1) Site Repairs, Additions. Alterations. (2) Board of Trade Depot. Bilborough Road, Trowell. (3) Ford & Weston Ltd., Osmaston Road, Derby.

WARWICKSHIRE. M.o.W. (1) Erection of 2-Storey Office Building. (2) M.N.L. King-standing Road, Kingstanding, Birmingham. (3) Maddocks & Walford Ltd., Tyburn Road, Gravelly Hill, Birmingham. 26.

YORKSHIRE. M.o.W. (1) Erection of T.V. Radio Relay Station. (2) Tinshill, Leeds, (3) Walter Ripley & Sons Ltd., 128 West Street, Leeds, 1

AIR MINISTRY. (1) Bu?ding. (3) H. Holland Ltd., Newmarket. (4) £500 or over.
AIR MINISTRY. (1) Building. (3) Wates Ltd., Norbury S.W.16.
AIR MINISTRY. (1) Hangar Erection. (3) Cozens & Sutcliffe, Enfield, Middx. (4) £500 or over.
AIR MINISTRY. (1) Maintenance work (3) W. A. James & Sons Ltd., Gloucester. (4) £500 or over.
AIR MINISTRY. (1) Maintenance work (4) £500 or over.

(4) £500 or over.

AIR MINISTRY. (1) Maintenance work.
(3) J. F. Booth, Banbury, Oxon. (4) £500

AIR MINISTRY. (1) Maintenance work. (3) W. C. Reade (Aldeburgh) Ltd., Aldeburgh, Sulfolk. (4) £500 or over.

ELECTRICAL

AIR MINISTRY. (1) Cables. (3) Sterling Cable Co. Ltd., Aldermaston, Berks. (4) £500 or over.

HEATING

AIR MINISTRY. (1) Heating. (3) G. N. Haden, London, W.C.2. (4) £500 or over. (3) G. N.

INSULATION

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MISCELLANEOUS

ANGLESEY. A contract has been placed with Pochin (Contractors) Ltd., Middlewich, Cheshire, at £131,973 for completion of the secondary school at Amlwch, by the C.C.

BIRMINGHAM. Smith, Stone & Knight Ltd., 84 Colmore Row, Birmingham, have a scheme to reconstruct their mills at a cost of about £100,000.

BRIGHTON. The Corporation has appointed Mr. W. H. Scanlon, 56 Buckingham Gate. London, S.W.I. as architect for tho proposed factory at Hollingbury, for Kent Bros., Electric Wirz Co., and E. H. Phillips Ltd. The factory will cover 80,000 square

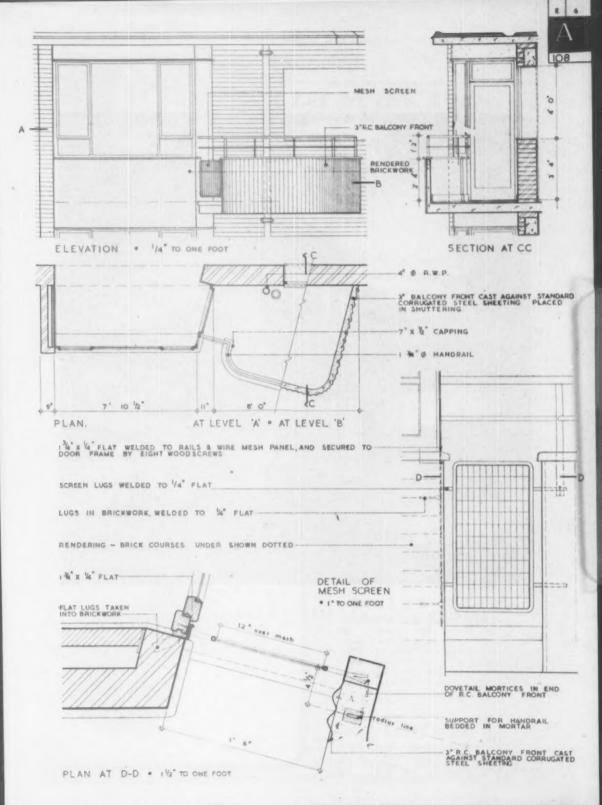
CHELTENHAM. The Foreign Office is to have a large housing programme for its staff, The B.C. has appointed the following staff, The B.C. has appointed the following named architects to prepare development plans. 200 flats and 16 houses, Mes'rs, L. W. Barnard & Partners, 13 Imperial Square, Cheltenham. 53 houses, Messrs. Rainger & Rogers, 29 Rodney Road, Cheltenham. 200 flats, Messrs. Louis de Soissons & Partners, London, N.W.I. The work will be expedited.

CHESHAM U.D.C. require tenders by January 8 for 24 flats in 3-storey blocks. Architects are Messrs. Powell. North & Sanders. Norfolk House, Station Road, Chesham. to whom application should be made by December 5.

COVENTRY. The City Architect is to meet representatives of the Home Office in connection with detailed plans for the new police headquarters, estimated to cost €425,000

DERBYSHIRE. Tenders are being invited by the County Council for new schools at Beighton, Kilburn Buston and Claveross. Particulars may be obtained from the County Architect. St. Marv's Gate, Derby, on deposit cheque for 27, %, 0d. for each project, payable to the C.C.

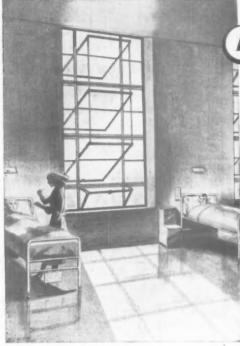
FARNBOROUGH. HANTS. The Urban Council has placed a contract with Gen. Winney & Co. Ltd. Hammer mith. W.6, for the erection of 100 houses and flats.





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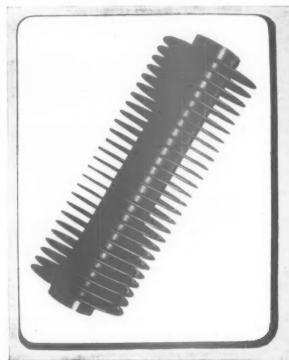
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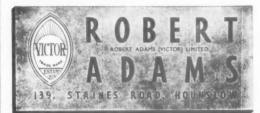
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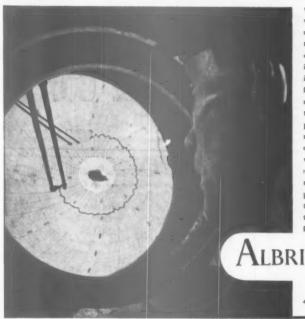
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1st November 1990. [6019

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Developmental. Possible proceedings. Position regarding military service

not essential. Position regarding military service must be stated.

2 CLERKS OF WORKS—A.P.T. Grade VA (£550 x £20 - £610).

Applicants should have been responsible for and have had considerable experience in large contracts, including schools and flats.

N.B.—London Allowance in addition to Salary Scales, viz. 16-20 years, £10 dx od per annum. 21-25 years, £20 dx dd per annum. 21-25 years, £20 dx dd per annum. Applications are also invited for the following temporary appointment.

temporary appointment —
CLERK OF WORKS (A P.T. Grade IV VA—

CLERK OF WORRS (A.P.). Grade IV VA-(£480 x. £15 - £52). (£550 x. 15 x. 15 x. 20 - £570). (£550 x. £20 - £610). Anglicants should have had considerable experi-ence in large contracts, and proferably on erection of houses and flats. Salary in accordance with

experience
The office is situated within twenty minutes on
the tube from Central London.
Application forms freturnable by 19th December.
1950) may be obtained from the Borough Architect
and Planning Officer. Thomas E. North. F.R.L.B.A..
70 West Ham Lane. Stratford. E.15.
West Ham Town Hall. Stratford. E.15.
West Ham Town Hall. Stratford. E.15.
15038

HEBBURN URBAN DISTRICT COUNCIL.

APPOINTMENT OF ASSISTANT ARCHITECT

A PPLICATIONS are invited from suitably quali-

A PPLICATIONS are invited from suitably quainfact persons for the permanent appointment of ASSISTANY ARCHITECT in the Architectural Section of the Engineer and Surveiver's Department. The saarry payable will be in accordance with Grade A P.T. V of the National Salary Scales, i.e. (250 to 650 p.a. The appointment will be subject to the National Scheme of Conditions of Service, and the provisions of the Local Government Buer-annuation Act. 1937. The successful candidate will be required to pass a medical examination. Preference will be awen to registered architects who have had experience in the architectural design and construction of housing and general municipal.

and construction of housing and general municipal

and committeem or assistant Architect," to gether with comes of two recent testimentals, must be received by the understand not rater than Tuesday, the 12th December, 1950.

I MEADOWS WRIGHT, LL M.
Clerk and Solicitor

Cerks Office: Council Offices

Argyle Street Hebburn, Co. Durham (5040)

LONDON COUNTY COUNCIL.

PPLICATIONS are invited for positions of ARCHITECTURAL ASSISTANT (salaries up to £580 a year) in the Housing and Valuation Department. Commencing salaries will be determined according to qualifications and experience. Engagement will be subject to the Local Government Superstrustion Acts, and successful candidates will be £6, be for consideration for appointment to the permanent sufficient salaries the occurrence

or vacancies.

Succonstit candidates will be required to assist in the design, layout and preparation of working drawings for housing schemes (cottages and mutatorey flass) and will be employed in the Housing.

storey flata) and will be employed in the Housing Architect's Divason. Forms of application may be obtained from the Drector of Housing. The County Hall. West-minster Bridge. S.E.1 (stamped addressed envelope required and quose reference A.A.1). Canvassing disqualibes. (816).

SALOP COUNTY COUNCIL.

COUNTY ARCHITECT'S DEPARTMENT

A PPLICATIONS are invited for the following ap-ASSISTANT ARCHITECT. A.P.T. Grades

1. ASSISTANT ARCHITECT. A.P.T. Grades
11-HI (42.70 to (495) per annumi.
2. JUNIOR ASSISTANT ARCHITECT. A.P.T.
Grades 111 (12.90 to (465) per annumi.
The appointments will be subject to one month's
notice in writing on either side; to the terms of
the National Joint Council's Scheme of Conditions
of Service, and to the provisions of the Local Government Superannusion A.T. (1937. The successful
applicants will be required to pass a medical exam nation.

examination.

Application forms may be obtained from the County Architect. A. G. Chant. F.R.I.B.A.. Counts House, London Road. Shrewsbury, to whom they must be returned, accompaned by copies of not more than three recent testimonità, not laier than Saturday, 30th December, 1950.

G. C. GODBER, Clerk of the Council.

Shrewsbury. November, 1950. 15048

SKEGNESS URBAN DISTRICT COUNCIL.

APPOINTMENT OF ARCHITECTURAL ASSISTANT, GRADE IV.

A PPLICATIONS are invited for the appointment of ARCHITECTURAL ASSISTANT in the Environment of Surveyor's Department. The salary payable will be in accordance with Grade IV of the National Scale. I.e., £880 to £525

Grade IV of the National Scale, 1.e., 6880 to 6525 per annum.

The approximent will be subject to the National Scheme of Conditions of Service, the provisions of the Local Government Superannusuon Act, 1937, and the passing of a medical examination.

Anni, cants should have had experience in the preparation of plans, desires, detail and specification of plans desires, detail and specification of the successful candidate.

Applications, endorsed "Arch tectural Austrant." stafing age, qual*flocations, prevent and past appointments and experience, together with copies of two recent testimonials and the name of one person to whom reference may be made, should be received by the undersigned not later than 15th December, 1950.

IVOR M, CULE, Clerk to the Council.

Town Hall, Skegness.

THE CIVIL SERVICE COMMISSIONERS E'VE notice of a Supplementary Reconstruction Competition for pensionable appointments as DRAUGHTSMEN (a) Architectural and Civil Engier ng, and (b) Mechanical and Electrical Engineer-

na. Applications will be accepted at any time up to 30th December, 1950, and selected cand dates will be interviewed as soon as possible after the receipt of their application forms.

of their application form.

Candidate must have been born on or after 2nd August, 1905, and on or before 1st August, 1928, eith extension for results acrision in HM. Forces, They must have obtained by 10th December, 1950, the Ord nary National. Certificate or equivalent qualification: but for post of Arch tectural Draughtsman candidates without auch qualification may be admitted exceptionally on evidence of training to an equivalent standard. Candidates must also have three years' practical experience including one year in a Draw no Office.

Opportunities for promotion.

Resultations and application forms from Civil Service Commission. Scientific Branch. Trinidad House, O'd Burlington Street, London, W.I., quotting No. 3219.

EAST GRINSTEAD URBAN DISTRICT COUNCIL.

MUNICIPAL HOUSING

TEMPORARY TECHNICAL ASSISTANT,

A PPLICATIONS are invited for the above ap-portunent at a salary equivalent to A.P.T. Grade II (620-6465 per annum) of the National Joint Council for Local Authorities Salaries Scale and Conditions of Service, the commencins salary being within the acute according to qualifications and/or experience

and/or experience.
The appointment is for a guaranteed minimum period of eighteen months, and thereafter will be subject to review in the Light of the housing programme of the Council.
The candidates must have a thorough all-round

experience in preparing layouts, specifications and bills of quantities, for roads and sewer construc-tions, together with experience in house design and

construction.

Applications, stating age, qualifications, appointments held, and details of experience, together with copies of three recent strmonials, must be sent to the undersigned endorsed. "Housing Assistant," at the underment oned address by not later than noon on Saturday, 16th December, 1930.

The Council will afford housing accommodation for the successful applicant if required.

L. R. BENNETT, Cerk of the Council, East Court, East Grinstead, Sussex. [5046]

NATIONAL COAL BOARD—EAST MIDLANDS DIVISION.

ARCHITECT'S DEPARTMENT.

A PPLICATIONS are invited for the following perminent and superannuated appointments—
(a) ARCHITECT. Grade I—Salary £700 x £25 -

RCHITECTS Grade II-Salary £450 x £25 -

(b) ARCHITECTS, step. £700 per annum. The no nt of entry into the relevant sa'ary scales will depend on the qualifications and experience of the successful applicants, and subject to satisfactory service, opportunities will be available for promotion

with oppend of the quantitative and extractive on a fractive construction will be available for promotion to higher grades.

The architectural work of the Denartment covers all new protocular in the Division, which embraces five count est. The work is of considerable variety and interest and includes the design of industrial buildings of all types concerned in the planning of colleges, and the analysis of the protocological protocologica

advantages of the Nottingham School of Archi-fecture,
Applications, stating age, education, qual fications, experience, present apno nument and salary, about does submitted within 14 days of publication of this advertisement so The Secretary, National Coal Board, East Mid ands Division, Sherwood Lodge, Arnoid, Nr, Nottingham, Envelopes should be marked "5 V 48." and ori-ginal lectimonials should not be seen, [5012]

CONTRACTS

COUNTY OF LINCOLN.

-PARTS OF LINDSEY

POLICE BUILDINGS AND COURTS. TOWN HALL SQUARE, SCUNTHORPE.

CONTRACT No. 2-SUPERSTRUCTURE

CONTRACTORS desirous of tendering for the Supersitueture of these buildings, known as Contract No. 2, should abornit the ranges to the Architects, Messrs, C. B. Pearson & Son, F.R.I.B.A., 18 Dation Square, Lancanter, on or before the 30th November, 1950. The Foundations between the 30th November, 1950. The Foundations to the Contract of the Son Special Contract of the 30th November, 1950. The Foundations between the 30th November, 1950. The Foundations of the Son Special Contract of the Special Contra been subject to a separate contract and are now nearing completion.

now nearing completion, Specifications. Bills of Quantities and Form of Tender will be sent to Contractors destrous of tendering, and plans may be seen at the Offices of the Architects, the Office of the Clerk of Works on the site, or at my Offices.

The acceptance of any tender is subject to the approval of the Home Office and the Council do not bind themselves to accept the lowest or any tender.

not thus transfer endorsed "Scunthorpe Police Scaled tenders endorsed" "Scunthorpe Police Scaled tenders endorsed to me not laser than Saturday the 6th January, 1951.

RERBERT COPLAND.

Clerk of the County Council.

County Offices. Lincoln.

November, 1950.

[5010]

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